Quality Management Plan

For the

New Hampshire
Department of Environmental Services

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Revision #4a

Quality Management Plan

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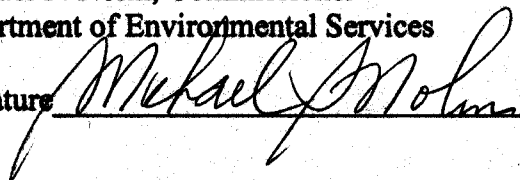**Harry T. Stewart, Water Division Director**

DES Quality Management Plan

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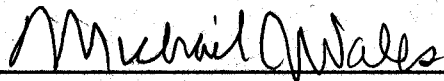Michael P. Nolin, Commissioner
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TABLE OF CONTENTS

LIST OF DEFINITIONS

Document

Any written, recorded information that is subject to change over time. Procedures, plans, policies, and records are documents. Documents may be controlled. See Records.

Environmental Conditions

The description of a physical medium (e.g., air, water, soil, sediment) or biological system expressed in terms of its physical, chemical, radiological, or biological characteristics.

Environmental Processes

Manufactured or natural processes that produce discharges to or that impact the ambient environment.

Environmental Data

Any measurements or information that describe environmental processes, location, or conditions; ecological or health effects and consequences; or the performance of environmental technology.

Environmental Data Operations

Work performed to obtain, use, or report information pertaining to environmental processes and conditions.

Environmental Programs

A term pertaining to any work or activities involving the environment, including: characterization of environmental processes and conditions; environmental monitoring; environmental research and development; the design, construction, and operation of environmental technologies; and laboratory operations on environmental samples.

Program

A functional unit of the DES conducting a defined set of activities and deliverables or otherwise a core set of related functions. This administrative function will often be found at the Bureau level, but this varies across DES. An example would be the Limnology Program within the Watershed Management Bureau of the Water Division.

Program Manager

The person responsible for conducting a specific DES program; this program management function is vested in people at different administrative levels within DES. The term project manager is used to describe staff that have direct knowledge and/or responsibility at the project or site-specific level.

Quality Assurance (QA)

An integrated system of management activities involving planning, implementation, documentation, assessment, reporting, and quality improvement to ensure that a process, item, or service is of the type and quality needed and expected by the client.

DES Quality Assurance Manager

The person assigned to manage (DES's) QA system.

Quality Assurance Program Plan (QAPP), Generic

A planning document, written to EPA specifications, which describes quality assurance procedures for a program or a set of projects. Use in conjunction with a Sampling and Analysis Plan (SAP – see Definition).

Quality Assurance Project Plan (QAPP)

A planning document, written to EPA specifications, which describes quality assurance procedures for a specific project.

DES Quality Assurance Team

A group of DES staff from various programs with interest and expertise in QA/QC matters which provides assistance to the Quality Assurance Manager and DES programs on QA/QC matters.

Quality Control (QC)

The overall system of technical activities that measures the attributes and performance of a process, item, or service against defined standards to verify that they meet the stated requirements established by the customer; operational techniques and activities that are used to fulfill requirements for quality.

Quality Management

That aspect of the overall management system of the organization that determines and implements the quality policy. Quality management includes strategic planning, allocation of resources, and other systematic activities (e.g., planning, implementation, and assessment) pertaining to the quality system.

Quality Management Plan (QMP)

A formal document or manual, usually prepared once for an organization, that describes the quality system in terms of the organizational structure, functional responsibilities of management and staff, lines of authority, and required interfaces for those planning, implementing, and assessing all activities conducted.

Records

A completed document that provides objective evidence of an item or process. Records may include photographs, drawings, magnetic tape, or other data recording media. See documents.

Sampling and Analysis Plan (SAP)/Site Specific Plan (SSP)

A planning document used in conjunction with a Generic Program QAPP, which describes the quality assurance procedures for a specific project/task that is not covered by the generic QAPP for the program.

Standard Operating Procedures (SOPs)

A written document that details the method for an operation, analysis, or action with thoroughly prescribed techniques and steps, and that is officially approved as the method of performing certain routine or repetitive tasks.

CHAPTER 1   PURPOSE

1.1   INTRODUCTION

The mission of the New Hampshire Department of Environmental Services (DES) is to help sustain a high quality of life for all citizens by protecting and restoring the environment and public health in New Hampshire. In carrying out its mission, DES relies upon many different types of data that enable it to better evaluate and measure existing environmental conditions, to identify and understand areas of concern, to assign responsibility for these areas, and to promote and enhance credible communication on environmental issues to a wide variety of audiences. The data DES uses must be credible, and the quality of that data must be appropriate for its uses.

To accomplish this, every DES staff member must understand how his or her activities affect data quality issues, and all staff must know what they have to do to help produce quality data. This is best accomplished by having a central documented plan, which is periodically reviewed and updated so that the overall data quality system continuously improves.

Each bureau and/or unit (hereinafter generally referred to as "program") within DES is responsible for assuring that data gathered by that program is of appropriate quality for its uses. Historically, DES programs have had success addressing their data quality needs. However, this was achieved largely through undocumented procedures, on-the-job training, and addressing system needs and deficiencies in an informal manner. While this approach may have served DES's past needs, the lack of documentation causes problems in assuring credibility for data underlying DES decisions and policies, and in institutionalizing a significant, but undocumented, knowledge base. To address these issues, this DES Quality Management Plan (QMP) documents the policies and procedures that ensure the appropriate quality of the environmental data used by the Department.

This QMP is intended to specifically document how the Quality Management System at DES is structured and implemented, and to provide a framework for continuous improvement. The QMP is a controlled document, the most up-to-date version of which is always accessible on the DES Intranet at: http://intranet/qa/plan.pdf. It is the responsibility of all pertinent staff keep an up-to-date copy (or access to one) readily available.

The QMP contains nine primary chapters organized to parallel federal guidelines and national standards for quality assurance, as follows:

2. DES's Organization
3. Quality System Components
4. Personnel Qualification and Training
5. Procurement of Items and Services
6. Computer Hardware and Software
7. Documents and Records
8. Planning and Implementing Quality Processes
9. Assessment and Corrective Action
10. Continuous Improvement

The QMP:

- Identifies the mission of the DES;
- Describes in general terms how the DES is organized to accomplish its mission;
- Identifies its commitment to quality and the quality systems needed to ensure that it accomplishes its mission; and
- Outlines roles and responsibilities within the organization to ensure data quality.

All of DES's major environmental programs will be covered by this QMP. The QMP affirms DES's commitment to quality.

1.2   ENVIRONMENTAL DATA QUALITY POLICY

BACKGROUND: The mission of the New Hampshire Department of Environmental Services (DES) is to protect, maintain and enhance environmental quality and public health in New Hampshire. In carrying out its mission, DES relies upon many different types of data that enable it to better evaluate existing environmental conditions, to identify and understand areas of concern, to assign responsibility for these areas, and to promote and enhance credible communication on environmental issues to a wide variety of audiences. The data DES uses must be credible, and the quality of that data must be appropriate for its uses.

Data is used for setting priorities and strategic directions, targeting inspections, measuring compliance, identifying violations, measuring progress and trends, measuring ecological health, and many other purposes. This data is critical because it can affect DES's direction and emphasis, determine whether an enforcement case will be successful, dictate which option will be followed to address a problem, or document a problem or demonstrate progress to the general public and the General Court.

The data DES relies upon must be of known quality, and the quality and quantity of that data must be appropriate for its uses. To accomplish this, everyone at DES must understand how his or her activities affect data quality issues, and all staff must know what they have to do to help produce quality data.

POLICY STATEMENT: The Department of Environmental Services will ensure, within its authority, that all of its programs deliver data of known quality to allow all parties to make appropriate decisions about the environment in New Hampshire.

IMPLEMENTATION STRATEGY: DES's data quality management efforts will follow written plans and guidance, which each program must generate. Copies of this policy will be provided to all staff. The DES *Quality Management Plan* (QMP) provides guidance for all DES programs. Following the QMP, all programs will prepare written standard procedures for sampling, testing, gathering information on field conditions, checking and validating this information, and reviewing their data quality systems. All programs will ensure that the purpose of every data gathering effort is understood by their personnel. DES has assigned a Quality Assurance Manager and a Quality Assurance Team, comprised of representatives of programs throughout DES, to lead these efforts.

All DES programs will have written data quality guidance, in accordance with the DES QMP. All DES programs will review their data quality systems annually, and will report the results of that review, including recommendations and actions for improvements, to the Quality Assurance Manager.

This policy is subject to revision. It is the responsibility of all employees to ensure that they are familiar with the most recent policy.

Date Established: **June 2001**   **Latest Revision: 2**

1.3   DES'S MISSION

DES was established by statute, effective January 2, 1987, combining several separate agencies and boards into a single department. The enabling legislation for DES, New Hampshire Revised Statutes Annotated (RSA) Chapter 21-O, sets forth the following broad areas of responsibility for the new agency:

- Water pollution control;
- Water supply protection;
- Regulation of waste disposal;
- Maintenance of state-owned dams;
- Inspection of dams;
- Flood control; and
- Air pollution control.

As set forth in DES's 1998 Strategic Plan, DES's mission is to "…protect, maintain and enhance environmental quality and public health in New Hampshire." Goals established under the Strategic Plan are:

1.   Clean Air

The air we breathe in New Hampshire is safe and healthy for all citizens, including those most vulnerable, and our ecosystems are free from the adverse impacts of air pollution.

2.   Clean Water

All of New Hampshire's lakes and ponds, rivers and streams, coastal waters, groundwater, and wetlands are clean and support healthy ecosystems, provide habitats for a diversity of plant and animal life, and support appropriate uses.

3.   Safe Drinking Water

All drinking water in New Hampshire will always be safe, available and conservatively used.

4.   Proper Waste Management & Effective Site Remediation

Promote responsible waste management and ensure wastes/regulated materials are properly handled and disposed. Conduct prompt remediation to restore contaminated sites to productive use while protecting the environment and public health.

5.   Protection of Natural Habitat

The sustainable development of New Hampshire's lands and natural resources is promoted throughout the state while protecting the diverse wildlife habitat, and unique features that make New Hampshire an attractive place to live, work, and visit.

6.   Dam Safety and Water Management

The state's surface and groundwater resources are managed and regulated for the protection, enhancement and restoration of environmental quality and public safety to support and balance social and ecological water needs.

7. Effective Management and Leadership

DES sets and achieves the highest standards for effective internal management, fiscal responsibility, and leadership on environmental issues.

8. Pollution Prevention

Encourage best efforts to prevent pollution before turning to recycling, treatment and/or disposal of the materials causing pollution. Eliminate or reduce the toxicity and absolute volumes of waste materials. Eliminate accidental pollutant releases to the environment. Conserve materials, energy, and water in order to move toward a sustainable society.

9. Public Education, Outreach and Partnerships

DES provides effective public education, outreach, and partnership activities.

10. Compliance Assurance

In order to foster full compliance with the laws it administers, DES provides education and outreach to the public, provides assistance to the regulated community, monitors compliance on an on-going basis, and maintains a fair and effective enforcement process.

11. Information Management

Information is collected, managed, analyzed, and disseminated effectively and efficiently to support well informed, timely and cost-effective environmental decision-making.

CHAPTER 2   DES'S ORGANIZATION

2.1   HOW DES IS ORGANIZED

The organizational chart included in Appendix A sets forth the current structure of the Department. DES consists of the Commissioner's Office, the Air Resources Division, the Water Division, and the Waste Management Division. A detailed listing and description of DES Programs is included in Appendix B. While there are some satellite offices for certain water quality and waste management functions (See Appendix C), all DES functions are managed from the offices in Concord. DES is a relatively small agency with a little over 500 staff. Because of this, and because most personnel are generally housed in the same building, it is DES practice for programs to consult and cooperate on all pertinent issues at all administrative levels. This chapter must not be read as describing a rigid organization comprised of many separate units. Cooperation between the various programs to address new issues, or issues that may affect more than one statutory program, is a hallmark of DES.

The responsibilities of the DES Senior Leadership Team are outlined in this QMP. In general, that group reviews the annual Quality Assurance Status Report presented by the QA Manager and authorizes necessary changes.

DES's programs interact with many federal, state and local government agencies, non-profit and non-governmental environmental and similar organizations, environmental groups, universities, volunteer groups, and many other organizations in order to maximize efforts to protect and enhance public health and the environment in the state. They are an integral part of the Department's environmental data gathering and analysis activities. A number of programs within the DES Watershed Management Bureau, in particular, the Volunteer River Assessment Program and the Volunteer Lake Assessment Program, rely heavily upon volunteer-generated information. Other programs, like the Technical Services Bureau's Air Monitoring section, utilize contracted laboratories to provide special analytical services. It is not uncommon for many other DES programs in the Air Resources, Water, and Waste Management Divisions to contract with a wide variety of individuals and organizations (as listed above) to assist with data gathering and analyses.

This QMP includes guidance on assuring that any such data generated by these outside parties through contracted, delegated, or volunteer activities meet DES's data quality needs (See Section 4.2 - "Volunteer Qualification and Proficiency" and Section 5.2 – "Procurement of Services"). Included among these groups are the United States Environmental Protection Agency, other New Hampshire state agencies (e.g., the Departments of Health and Human Services, Fish and Game, Resources and Economic Development, Transportation, etc), local Boards of Health, Regional Planning and Conservation Commissions, Environmental and other non-governmental organizations, private organizations, the University of New Hampshire and other educational institutions.

2.1.1   COMMISSIONER

The Governor, with the approval of the New Hampshire Executive Council, appoints the Commissioner of DES for four-year terms. The Commissioner reports to the Governor. The Commissioner chairs the Senior Leadership Team, which is comprised of the Assistant Commissioner and the three Division Directors, each of whom report directly to the Commissioner.

The functions of these positions with respect to the QMP are described briefly below.

2.1.2   ASSISTANT COMMISSIONER

The Assistant Commissioner is an appointed position with a four-year term.   The Assistant Commissioner oversees implementation of the Quality Management System.   In this function, the Assistant Commissioner will resolve any quality assurance-related disputes that cannot be resolved by the Quality Assurance Manager with the Quality Assurance Team's assistance.

2.1.2.1   COMMISSIONER'S OFFICE UNITS

The following Units report to the Assistant Commissioner. Descriptions are provided for those Units with specific ties to the Quality Management Plan.

- Administrative Services Unit - This unit is responsible for all accounting functions, federal grants, purchasing, budgets, property records, payroll, and financial reporting.

- N.H. Geological Survey - The State Geologist advises DES and all other branches of state and local government concerning geology-related issues.   The state geologist maintains liaison with federal and other state geologic agencies and with the University of N.H.

- Human Resources (HR) Unit - HR is responsible for functions such as organizational and employee development, employment, compensation and benefits, employee relations for the DES, and various training and record keeping (including quality-related training).

- Information Resources Management Unit (IRMU) - IRMU is responsible for all computer hardware and software at DES, including purchasing, installation, and maintenance. IRMU works under statewide policies for computer equipment and use promulgated by the N.H. Department of Administrative Services, Division of Information Technology Management. DES's Geographic Information Systems (GIS) efforts are coordinated by IRMU. **Note:**   The Information Resources Management Unit no longer exists within DES as it previously did due to the fact that in early 2003, the State of New Hampshire went through a centralization of Information Technology resources and is now fully reorganized under a new Governor's Office of Information Technology (OIT).   OIT is currently in the process of developing new relationships with each agency's previously separate information technology infrastructure. While the reorganization has been completed and is wide-spread, the general quality assurance-related information technology functions and processes described in the pertinent QMP chapters remain largely the same.   The next QMP annual review (in 2004) will include a more detailed and up-to-date description of the final impacts of the OIT reorganization.

- Laboratory Services Unit - The DES Laboratory is a fully-certified laboratory that conducts testing of drinking water, surface water and groundwater from both background and contaminated waste materials and soils. Testing for microbiological, inorganic, organic, and radiochemical parameters is conducted in-house.

- Legal Unit - The Legal Unit is responsible for conducting administrative hearings on proposed administrative fines and license revocation/suspensions and for providing other legal support to DES. The Legal Unit also oversees all DES administrative rule-making and administrative enforcement. The Legal Unit does not serve as General Counsel to DES; that role is filled by the N.H. Department of Justice, Attorney General's Office (NHDOJ). DES refers appropriate enforcement cases for judicial action (civil or criminal) to the NHDOJ and requests NHDOJ representation in some administrative matters.

- Planning Unit - The Planning Unit is responsible for DES planning functions, including strategic planning, Performance Partnership Agreements, and grants with the U.S. EPA (USEPA), and performance measures and environmental reporting, among other duties. The Planning Unit houses the Chief of Planning and Policy who serves as the DES Quality Assurance Manager.

- Public Information and Permitting Unit (PIP) - PIP is responsible for the coordination of DES communications with the public and media outlets, and for coordination of publications development and dissemination by the various agency programs. PIP also provides technical permit coordination services, in cooperation with other federal, state, and local agencies, to familiarize and assist new companies, organizations, government agencies, and individuals with interpretation of regulatory requirements (including their applicability) and the availability of integrated permitting assistance from the agency, including the new *Guidebook for Environmental Permits in NH*.

2.1.3   DIRECTOR, AIR RESOURCES DIVISION

The Director of the Air Resources Division (ARD) is an appointed position. The Director is responsible for all Department functions related to air pollution and air quality. In order to evaluate New Hampshire's air quality, ARD operates ambient air quality monitoring stations throughout the state. Air quality monitoring data is collected on a continuous basis and evaluated based on the National Ambient Air Quality Standards established by the US Environmental Protection Agency. Depending on the results of the air quality monitoring data, various programs have been implemented to achieve and/or maintain the standards and comply with federal requirements. Some of these ongoing programs include: stationary source permitting (or licensing), stationary source inspections, complaint investigations, compliance stack testing, local and long-range air dispersion modeling analyses, enhanced motor vehicle safety inspections, Stage I/Stage II gasoline vapor recovery, and various education and outreach initiatives.

ARD also maintains an extensive air emissions database. This database includes emissions from New Hampshire stationary sources, mobile sources and area sources. Stationary sources of air pollution are required to submit annually their actual air pollution emissions. Mobile sources emissions are generated using vehicle miles traveled data and EPA approved emission factors. Area sources emissions are estimated using fuel usage data, population data, etc. This data is stored in state/federal databases were it can be used for many different purposes such as: compliance determinations, evaluating the effectiveness of state and national programs, predicting state and regional air quality concerns, and evaluating overall air quality emissions trends.

In addition to air pollution from New Hampshire sources, ARD is also concerned with the transport of air pollution from upwind states. ARD is heavily involved in national policy decisions to seek

emission reductions from sources in upwind areas. In particular, New Hampshire's long-range air quality modeling data is used extensively to support these national policy positions.

ARD is divided into five functional units as follows:

- Stationary Source Management Bureau (SSMB) – The Stationary Source Management Bureau (SSMB) is responsible for permitting, planning and the overall management of stationary sources of air pollution. The SSMB consists primarily of three sections: Permitting, Planning and Air Toxics Sections. The Permitting Section ensures that new and existing sources of air pollution can comply with a wide range of state and federal air pollution regulations. The Planning section oversees rulemaking for the Division and maintains the Division's Stationary Source State Implementation Plan (SIP). The Air Toxics Section oversees the state Air Toxics Program and the federal Hazardous Air Pollutants Program.

- Technical Services Bureau – This bureau serves as technical support to the Division and is mainly responsible for operating and maintaining the State's air quality monitoring sites, operation of the State's Ozone Information Line and website, and completing and analyzing both the local and long-range air dispersion modeling analyses. ARD's Global Climate Change and Mobile Source Programs are also housed in this bureau. In the air quality planning role, the Technical Services Bureau analyzes, compiles, and submits federally required State Implementation Plans and associated Rate of Progress plans to ensure that national Ambient Air Quality Standards are met. The Technical Services Bureau is divided into four units, the Atmospheric Analysis Unit, the Mobile Sources Unit, the Ambient Air Monitoring Unit, and the Global Climate Change Unit.

- Compliance Bureau – The Compliance Bureau is responsible for administering the State's compliance assistance and enforcement activities relative to state and federal air pollution control laws and regulations. The Compliance Bureau is responsible for compliance determinations, facility inspections, complaint investigations, compliance stack testing, Relative Accuracy Testing Audits (RATAs), the Stage I/Stage II Gasoline Vapor Recovery Program, emergency response, emissions inventory, compliance assistance and enforcement. The Compliance Bureau is divided into five sections: Compliance Testing, Compliance Assessment, Emissions Inventory, Enforcement, and Emergency Response. An important function of this bureau is maintaining an accurate and extensive air pollution emissions inventory of New Hampshire sources. This data has many useful purposes including determining compliance with state and federal regulations, establishing state and national emissions trends and helping to evaluate the effectiveness of the State's air quality programs.

- Education and Outreach Unit – This unit is responsible for various education and outreach initiative and planning related activities. Activities include: developing ARD's Clean Air Strategy, coordinating ARD's Performance Partnership Agreement, developing various ARD fact sheets and other educational materials, developing various outreach initiatives, and developing/coordinating various educational/ outreach activities including training workshops, visits to schools, speaking engagements, etc.

- Small Business Technical Assistance Program (SBTAP) – ARD has a SBTAP Ombudsman that provides compliance assistance related to air quality regulations to small businesses in New Hampshire. The main purpose of this program is to help small businesses understand

and comply with state and federal requirements. SBTAP provides the following services alone and in partnership with other assistance programs:

- o Inform businesses of all requirements in the Clean Air Act Amendments (CAAA) that apply to them, and the dates these requirements will apply.
- o Help small businesses deal with specific technical, administrative and compliance problems.
- o Disseminate up-to-date information about the CAAA to the small business community, including easy-to-understand public information materials.
- o Provide pollution prevention information and assistance to reduce the amount of air emissions and other wastes created by a small business.
- o Provide on-site evaluations of company work practices, monitoring procedures and record keeping to determine effectiveness in complying with applicable clean air requirements.

2.1.4   DIRECTOR, WASTE MANAGEMENT DIVISION

The Director of the Waste Management Division (WMD) is an appointed position. The Director is responsible for all DES functions related to solid and hazardous waste management, contaminated site investigation, hazardous material storage, and hazmat and petroleum spill response.

Field testing to address complaints or to confirm results reported by others is conducted as necessary. In a few cases, WMD personnel conduct on-going soil and groundwater sampling and testing programs at contaminated sites. In the majority of cases, WMD personnel review sampling and testing results reported by others such as outside contractors and consultants.

WMD is divided into two major functional units -- Waste Management and Site Remediation Programs -- with sub-units:

- **Waste Management Programs**. This includes:

  - o The Solid Waste Management Bureau is comprised of three programs: Compliance, Financial Oversight, and Permitting. The Compliance Section deals with general compliance and landfill closure, and remediation and monitoring of asbestos contaminated properties. The Financial Oversight Section oversees landfill and incinerator closure grants to ensure that timely facility closures are not delayed by lack of funding. Also, the financial assurance program was established to monitor the adequacy of funds being available to close solid waste facilities. Lastly, the Permitting & Design Review Section reviews permit applications and design proposals and provide construction oversight at solid waste facilities.

  - o The Hazardous Waste Compliance Section (HWCS) is responsible for administering the State's hazardous waste management inspection program. The HWCS inspects business entities for compliance with hazardous waste identification, storage, permitting, transportation, record keeping and reporting. Other important functions of the HWCS include providing grants for the collection of used oil, sustaining authorization of the State hazardous waste program in lieu of the federal government's program, drafting rules, providing compliance assistance and issuing various types of hazardous waste permits.

- o The Planning Bureau oversees solid/hazardous waste planning and legislative activities within the Planning & Community Assistance Section. The Bureau offers compliance assistance through the Pollution Prevention & Education Section, including grants for household hazardous waste collection days. The Reporting and Information Management Section is responsible for the implementation of all information management functions relative to the Resource Conservation and Recovery Act (RCRA) Subtitle C program.

- o The Special Investigations Section (SIS) maintains an emergency response capability for hazardous materials incidents, conducts "non-notifier" inspections at facilities generating hazardous waste who have failed to notify the State of that activity, register and monitor the compliance of all hazardous waste transporters operating vehicles in New Hampshire, and conduct complaint investigations for solid and hazardous waste complaints received by Waste Management Programs.

- **Site Remediation Programs**. This includes:

  - o The Oil Remediation and Compliance Bureau which administers petroleum-contaminated site investigation and clean-up; design review, registration and compliance inspection of above-ground petroleum storage tanks and all underground storage tanks (regardless of material stored); and administration of state reimbursement funds for releases of petroleum from regulated tanks.

  - o The Hazardous Waste Remediation Bureau which administers site investigation and clean-up for sites contaminated with materials other than petroleum under both state programs and federal programs such as Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) Corrective Action.

2.1.5   DIRECTOR, WATER DIVISION

The Director of the Water Division (WD) is an appointed position. The Director is responsible for all Department functions related to water pollution, water quality, drinking water supplies, wetlands protection, water resources and dam safety. WD personnel review extensive data submitted to DES from operators of public water supplies and holders of National Pollutant Discharge Elimination System (NPDES) permits. WD takes enforcement actions based on these results, as necessary. Field testing to address complaints or to confirm results reported by others is conducted as necessary.

WD is divided into six functional units:

- Land Resource Management Programs. These include:

  - o Water Supply Engineering Bureau for all permitting, assistance and compliance functions related to public water supplies and environmental laboratory accreditation;

  - o The Wetlands Bureau for permitting and compliance functions related to all work in New Hampshire's wetlands;

- The Subsurface Systems Bureau for permitting of subdivisions and septic systems. This bureau also administers the licensing program for septic system designers and installers;

- The Shoreland Protection Program which oversees construction along shorelines to ensure water quality;

- The Water Quality Engineering Section which issues permits for erosion control at construction projects and enforces these permits.

- The Wastewater Engineering Bureau which provides design review and approval for sewers and treatment plants, manages the Revolving Loan Fund, provides operational assistance to municipalities, provides oversight of municipal industrial pre-treatment programs, enforces NPDES permits, and investigates un-permitted discharges into surface waters.

- The Watershed Management Bureau. This Bureau includes several programs, including:

  - Lakes and Rivers Management for planning and management functions related to the lakes and rivers of the state, including the Designated Rivers Program and the Instream Flow Program;

  - Watershed Assistance Section which includes nonpoint-source pollution and watershed protection initiatives, including education and outreach, and financial assistance for local initiatives and restoration projects through Section 319 Grants;

  - Water Quality Planning which includes on-going water quality testing of the state's rivers.

  - The Biology Section which monitors aquatic biota including exotic fresh-water weeds. This section also includes the Limnology Center, which conducts biological testing of aquatic biota to monitor ecologic health.

  - Volunteer River Assessment Program (VRAP) and Volunteer Lake Assessment Program (VLAP) which use volunteer monitors to collect water quality data from NH rivers and lakes and the Weed Watchers Program for Exotic Aquatic Species, both of which also rely upon volunteer-generated data.

  - Shellfish Program which ensures that the state's shellfish are safe for consumption by those who enjoy harvesting these public resources.

- The Dam Bureau which operates and maintains an extensive network of state-owned dams, reviews applications to construct dams, and inspects all dams for safety.

- The Water Resources Bureau which manages the water resources of the state, including extensive data gathering, such as snow-pack measurements and river and lake water levels.

- The Winnipesaukee River Basin Bureau which operates the Winnipesaukee River Basin Wastewater Treatment Plant, an 11.5 million-gallon-per-day (design flow) wastewater treatment plant covering most of the developed areas around Lake Winnipesaukee and Winnisquam and the Winnipesaukee River downstream of the Lakes.

CHAPTER 3   QUALITY SYSTEM COMPONENTS

3.1   OVERVIEW OF DES'S QUALITY SYSTEM

The DES quality system consists of the people, functions, tools and procedures used to improve and assure the quality of data generated for data users and decision-makers for the programs identified in Section 2.1. The DES quality system encompasses, and is applicable to, all aspects of its environmental data operations, as described in Sections 2.1.2 through 2.1.5.

This QMP is the main guidance document at DES to ensure that environmental programs (whether they are located within DES, or are working with DES programs under a variety of arrangements including on a contractual or volunteer basis), produce the type and quality of results needed and expected, in particular, that all environmental data collected, generated and used will be scientifically valid; of known precision and accuracy, completeness, representativeness, and comparability; and legally defensible. Because DES interacts with many federal, state, and local government agencies, environmental groups, universities, volunteer groups, and many other organizations in order to maximize efforts to protect and enhance public health and the environment in the state, this QMP also includes guidance on assuring that data generated by these outside parties meet DES's data needs.

Implementation of the DES QMP is the responsibility of staff throughout the Department, with the guidance and support of the DES Senior Leadership Team, the QA Manager and QA Team, as well as program managers. Based upon the provisions contained in this QMP, staff are fully informed and trained as to how their activities affect data quality issues and what they must do to help produce quality data. The procurement of items and services associated with environmental programs is carried out in accordance with this QMP. Quality-related planning and implementation tools, such as Data Quality Objectives (DQOs), Quality Assurance Project Plans (QAPPs), Standard Operating Procedures (SOPs), and general document and records control are applied as described in this QMP.

Additionally, the "DES Quality Assurance System Implementation Guidance for Program Managers" (Implementation Guide) provides information tailored specifically to help DES's program managers. The Implementation Guide, the DES QMP, and other related information are posted on DES's Intranet site. The Implementation Guidance is included in this document as Appendix H.

By January 31 of each year, the QA Manager, with the assistance of the QA Team, will prepare a Quality Assurance Status Report covering the previous year. Detailed information on the extent of the QMP review (including a phased approach during the early implementation stages of DES quality management system) and the contents of the Quality Assurance Status Report is presented in Chapters 9 and 10 of this document. The DES QA Manager will provide a briefing to the DES Senior Leadership Team and identify any quality areas requiring improvement. The Commissioner and Assistant Commissioner have final review and approval authority for the report. The report will be maintained on file with the QA Manager and will be available to USEPA upon request.

The QMP will be reviewed annually to ensure that all information contained within it is relevant and up-to-date. Any necessary QMP revisions will be made, and the document will be submitted to USEPA, along with the annual Quality Assurance Status Report. Five years from the date of approval of this QMP, the QA Manager and Team will undertake a complete review of the document and submit a revised QMP to USEPA for approval.

Each environmental program at DES will have a copy of the approved QMP on file. The approved QMP will also be posted on the DES Intranet for ease of access by program managers and others. Program-specific quality documents will also be posted on the DES intranet for staff use. Implementation of the quality assurance system will be incorporated into the appropriate Performance Partnership Agreement and Comprehensive Action and Assessment Planning documents for each environmental program.

3.2 QUALITY ASSURANCE MANAGER

The Quality Assurance (QA) Manager serves as coordinator for all matters relating to Quality Assurance policies and procedures. The QA Manager chairs the QA Team, that, in consultation with the Assistant Commissioner, administers DES's quality assurance and control processes. The QA Manager must have the training necessary to carry out quality assurance oversight, activities, and reviews.

The QA Manager maintains independence and impartiality of the data quality review. This individual has direct access to the Senior Leadership Team in order to communicate: 1) findings from reviews and audits; 2) status of the QMP; 3) problems with QA operations; 4) clarification and/or guidance on QA issues; and 5) resolutions to QA issues that may be in conflict with other management guidelines. This individual has no data gathering or reviewing responsibilities that would lead to a possible conflict with the QA Manager role.

3.3 QUALITY ASSURANCE TEAM

The mission of the QA Team is to implement the DES's goal of assuring the quality of environmental information used for decision-making. To achieve this goal, the QA Team must:

- Increase quality awareness and quality consciousness and commitment throughout DES;
- Provide appropriate training to all relevant staff; and
- Assure that all procedures related to data quality are properly observed and documented.

The DES QA Manager and the QA Team have the overall responsibility for assessing the procedures that are implemented throughout the Department to determine whether they are in compliance with the QMP. Representatives of the various programs will, as a part of the QA Team, provide assistance to the QA Manager on both technical matters and policy matters. Specifically, the QA Team assists the QA Manager to:

- Oversee the implementation of the QMP, and to ensure that program managers and staff understand and implement applicable quality assurance procedures;
- Provide timely information on the status of the Quality Management System to DES's Senior Leadership Team;
- Serve as the liaison between the DES and the QA staff at USEPA Region I on Quality Assurance/Quality Control (QA/QC) matters;
- Provide interpretations of DES QA/QC policies and ensure that data policies and procedures are consistent with the USEPA requirements and DES goals;
- Coordinate the reviews, assessments, and audits that are identified in the QMP;
- Provide technical assistance to support program staff with implementing the QMP;
- With program managers, develop guidance on QA/QC issues for use in DES; and

- Resolve any disputes that may arise regarding quality assurance issues within or between various DES units.

The QA Team is the quality assurance resource for DES as a whole. It is anticipated that Team membership will change as circumstances dictate. The QA Team is comprised of individuals who have been identified by the DES Senior Leadership Team as qualified and available to serve as representatives of various programs. These individuals have varied responsibilities depending on which programs they represent. The current members of the DES QA Team are listed in Appendix D.

3.4   QUALITY SYSTEM TOOLS

The following are the primary tools utilized in DES's Quality Management System:

- Overall, this Quality Management Plan;
- An Environmental Data Quality Policy (see Section 1.2);
- The Implementation Guide (see Appendix H);
- A description of relevant DES programs and activities covered by the quality assurance requirements outlined in this QMP (see Sections 2.1.2 through 2.1.5);
- An organizational structure to assure accountability (see Chapter 2);
- Designated roles and responsibilities of those involved with quality assurance functions, in particular, the DES Quality Assurance Team (led by the DES Quality Assurance Manager), and DES Program Managers (see Chapter 2 and Sections 3.2 and 3.3);
- Communications processes (internal, external, confidential and non-confidential);
- Requirements and specifications, such as state and federal statutes, DES rules, federal regulations, Performance Partnership Agreements, grant work plans, Performance Partnership Grants, and contracts;
- Quality assurance planning tools, including strategic and organizational plans, project and program-specific quality assurance project plans (QAPPs), and similar documents such as sampling and analysis plans (SAPs), site specific plans (SSPs), and data quality objectives (DQOs) (see Chapter 8);
- Quality assurance implementation tools, such as SOPs, training requirements, procurement procedures, and record keeping requirements;
- Annual quality assurance assessment and response tools, including quality system audits, Quality Assurance Status Reports, corrective actions, data quality assessments, and performance evaluations (see Chapter 9); and
- Management assessments (see Chapter 10).

CHAPTER 4   PERSONNEL QUALIFICATION AND TRAINING

DES recognizes that the quality of data it collects and manages is dependent upon the qualifications and levels of proficiency of DES staff and citizen volunteers who handle the data.   DES's adherence to set procedures that define and control staff hiring and training, and adherence to its training requirements for volunteers, assures that staff members and volunteers are sufficiently qualified and proficient.

4.1   GENERAL STAFF QUALIFICATIONS AND PROFICIENCY

Administration of activities pertaining to staff qualifications and proficiencies of state agency employees are dictated by the New Hampshire Code of Administrative Rules of the Division of Personnel, Chapters Per 100 through 1500, adopted April 21, 1998.   These fall under the statutory authority of RSA 21- I:43, II.   Supplementing these rules are three Technical Assistance Manuals describing procedures that are followed pertaining to certain aspects of personnel management.   These are *Technical Assistance Manual Chapter I – Classification;   Technical Assistance Manual Chapter II – Recruitment and Certification; and Technical Assistance Manual Chapter III – Examinations.*   The Division of Personnel, located at 25 Capitol Street in Concord, NH, holds copies of all these documents.   Per 301.1 further requires that the Division of Personnel have a *Personnel Classification Plan*, which consists of a complete set of published class specifications and the evaluation plan and point factors used to write class specifications.   DES also holds a reference copy of the current rules of the Division of Personnel.

Personnel qualifications are set under New Hampshire Code of Administrative Rules Chapter Per 300, which addresses both general job classification descriptions and job-specific qualifications specified under supplemental job descriptions.   The Division of Personnel establishes the class specifications.   Supplemental job descriptions for the DES positions are produced by a collaborative effort between DES and the Division of Personnel, ensuring DES's input in establishing the personnel qualifications for each of its positions.   DES maintains a file of all current classifications and associated supplemental job descriptions.

Together, these documents prescribe a tightly-controlled process of defining job responsibilities and establishing qualifications (*i.e.,* experience, education, etc.), certifying that candidates meet those qualifications (all job applications must be certified by DES Human Resources Staff as meeting the minimum qualifications), and screening candidates through the prescribed examination and interview processes.

Further, the personnel rules define procedures that address the manner and frequency of evaluations to ensure that personnel performance continues to meet the standard required of the position.

Personnel rules, however, are only part of the process through which DES ensures continued proficiency of its staff.   DES provides in-house training and provides for staff participation in other training, such as local and regional workshops. Also, certain activities are subject to review by others to ensure that DES's interests are not compromised by procedural errors.   For example, a wetland inspector's Letter of Deficiency will be reviewed by the enforcement supervisor to ensure the integrity of all lines of evidence and other aspects of the inspection process.   Shortcomings are thus identified early and are brought to the attention of the inspectors so that they may be avoided in the future.

4.2 VOLUNTEER QUALIFICATIONS AND PROFICIENCY

Volunteers perform an integral role in collecting data for various programs at DES. In order to ensure that DES volunteers are qualified to perform their data collection efforts, all volunteers are required to attend an annual DES-led training session pertaining to their particular collection effort. The documentation of this training attendance serves as the qualifier for all DES volunteers involved in data collection efforts. Data collected by volunteers who did not attend an annual DES training session is not accepted by DES, unless a qualified DES volunteer closely supervised the untrained volunteers in the collection efforts. The proficiency of the volunteers should be assessed as part of the program's normal annual review.

Volunteers also play a critical role in USEPA-funded projects that require QAPPs. If volunteers collect data as part of a QAPP-required project, the qualification and proficiency requirements will be specified in the USEPA-approved QAPP. Program managers should refer to *The Volunteer Monitor's Guide To Quality Assurance Project Plans,* USEPA 841-B-96-003 September 1996, or later edition.

4.3 TRAINING PROGRAMS - GENERAL

Program managers are responsible for evaluating positions, determining the need for training or certification, and ensuring that staff (and volunteers) performing work be trained and qualified based on project-specific requirements prior to the start of the work or activity. Program managers are also responsible for providing sufficient opportunities for staff to obtain any required training and certifications. In addition to maintaining accurate staff training records (as described below in Section 4.5 – Training Tracking), program managers should also document suggested or required minimum training needs by updating existing Supplemental Job Descriptions (see Section 4.1) and/or by creating a separate document recording such information.

DES personnel typically undergo training of various types. These include orientation of new employees, on-the-job training, in-house training, training conducted by the Division of Personnel's Bureau of Education and Training, participation in regional technical training programs involving USEPA Region 1 and other states in the region, and national training programs involving USEPA, other federal agencies, Non-Profit Organizations (NPOs) and Non-Governmental Organizations (NGOs).

DES program volunteers are required to attend training sessions designed by DES program managers. Other training activities may also be made available by the program managers as they see fit. Volunteers will also be encouraged to attend training activities sponsored by other agencies, NPOs and NGOs.

4.4 TRAINING PROGRAMS – QUALITY ASSURANCE

Program Managers and DES staff are encouraged to draw upon their educational background, experience, professional training, conferences, and on-the-job training to enhance their understanding and performance of quality assurance-related procedures. Records shall be kept of all quality assurance training attended.

The DES QA Manager may arrange or alert staff to courses that are available to satisfy staff quality training needs. The DES QA Manager and the QA Team should participate in quality assurance

training courses (offered by USEPA and others), in order to enhance their knowledge and understanding of quality assurance issues, including techniques on implementation of effective quality management systems.

To ensure that DES staff members are aware of the importance of quality assurance and control, as well as DES's commitment to building and maintaining an effective quality management system, all current employees will be made aware of, and all appropriate personnel will be required to read, the DES Environmental Data Quality Policy and this QMP, both of which will be posted for easy access on the DES Intranet Site. In the future, all appropriate new staff will be required to read the plan during their orientation period.

4.5   TRAINING TRACKING

DES personnel training is tracked by including records of training programs attended in employee personnel files maintained by DES's Human Resources Unit. Program managers are responsible for ensuring that training records are forwarded to DES's Human Resources Unit in a timely manner, and that each employee's training file is kept up-to-date. Further, New Hampshire Code of Administrative Rules of the Division of Personnel, Per 1501.03 requires copies of training records for state training and workshops (*i.e.,* training offered by the Division of Personnel, Bureau of Education and Training) attended by an employee to be placed in the employee's permanent personnel record that is kept at the Division of Personnel.

DES program managers will track their volunteers' training efforts and maintain records of that training within their own program files. It is not necessary to forward volunteer training records to the DES Human Resources Unit.

CHAPTER 5   PROCUREMENT OF EQUIPMENT, SUPPLIES AND SERVICES

5.1   PROCUREMENT OF EQUIPMENT AND SUPPLIES

DES is subject to a both state and federal requirements regarding the procurement of equipment and supplies. On the federal side, DES must comply with 40 CFR (Code of Federal Regulations) 33 – Procurement Under Assistance Agreements. The New Hampshire Department of Administrative Services, Division of Plant and Property Management, Bureau of Purchase and Property is the state agency responsible under authority of RSA 21-I for the purchase of all equipment and supplies for use by state agencies. Equipment and supplies are ordered in accordance with the requisitioning agency's specifications which are submitted in conformance with the provisions of N.H. Code of Administrative Rules Adm – Sections 100 - 400 and 600, Plant and Property Management Rules. DES staff requesting the purchase of equipment and/or supplies are responsible for ensuring that the equipment or supplies being ordered will meet their quality needs. They must prepare an internal requisition form, obtain signatures from supervisory and other staff as appropriate (*e.g.,* Information Resources Management Unit staff must review and approve all computer software and hardware-related purchases – See Chapter 7, "Computer Hardware and Software)," and then forward it to the Accounts Payable Purchasing Section within DES. Accounting staff prepare a formal requisition form and forward it to the Bureau of Purchase and Property. The requisition form contains specifications on the quality and performance of the item(s) being purchased (after review and signature by the supervisor responsible for oversight of the project), as well as others involved in the in-house approval process, as described above. DES staff work with the State's Purchasing Agent to ensure that all items ordered and received meet the required specifications as identified by the agency, and work with the Purchasing Agent to rectify any discrepancies that may occur.

In cases where equipment or supplies are being ordered for the first time, program managers may choose to survey their counterparts in other agencies or states engaged in comparable activities to ascertain useful information regarding specific equipment or vendors. This information can be used effectively when writing order specifications to limit vendor responses to those that are of the most interest and who are capable of supplying the best product for the task at hand. The Internet is also a useful tool that a project manager may use to see what is available prior to entering a procurement process.

The DES Facilities Services Section within the Administrative Services Unit of the Commissioner's Office is primarily responsible for tracking packages that arrive at DES's shipping dock. Packages that arrive through regular mail or that are directly delivered to staff or dropped off at the main DES Information Desk, while outside of the direct control of Facilities Services staff, are still tracked as described below. At regular intervals, Facilities Services staff visit the shipping dock to conduct an inventory of received goods. This is done by reviewing the packing slips, doing a general inspection of the packages, and recording relevant information (*e.g.,* vendor details, item number, number of packages, quantity, unit, detailed item description, date received and any comments on the condition of the packages) on a standard "Receiving and Inspection Report" (RIR) form. The packages, along with any packing slips or invoices, are then delivered to the appropriate requesting staff. Within one week, all staff in receipt of packages (regardless of how they came into the Department) are expected to inspect their order for completeness and to determine if the purchased items are undamaged and in

working order. Full acceptance of the order is usually indicated by dating and signing the packing slip or invoice, providing an appropriate account number, and forwarding the information to Facilities Services. The information is then cross-referenced with the RIR form and acceptance of the order is indicated. Once the order has been accepted and approved, Facilities Services staff provide a copy of the RIR form and/or signed packing slip or invoice to Accounts Payable staff where arrangements are made (in the form of a payment voucher) to pay the vendor. All information is entered into the State's Integrated Financial System (IFS). All payments require final approval by the Business Administrator of the DES Administrative Services Unit.

Any issues associated with orders are handled directly by the requesting staff. In this case, within one week, Facilities Services should be notified that there is a problem with the order. With this information, the order (or a particular item) is listed as rejected on the RIR form. A rejection notation on the RIR halts payment to the vendor until the issue is effectively resolved.

The RIR form is an important tracking tool for received goods. Each day, staff from Facilities Services sends out e-mail reminders to staff for unconfirmed orders dating back one week. Staff are reminded to inspect their orders and to let Facilities Services know (via a signed, dated packing slip or invoice) if the order is complete, undamaged, and if arrangements for payment should be made.

5.2 PROCUREMENT OF SERVICES

In the design of an environmental sampling plan or project it may become necessary to outsource services, that is, to contract with another state agency, organization, or private company to provide support services. As an environmental monitoring or sampling program is designed, specific, objective criteria will be used in evaluating and ultimately selecting an outside agency, organization, or company to provide the support services needed to carry out the project, (*e.g.,* analytical services which require facilities and equipment beyond the in-house capabilities of DES.) A survey of agencies that are performing similar projects may be conducted to generate a potential vendor list which can then be used to screen vendor qualifications and competence. This information can be used to identify vendors who have already been certified by other agencies to perform the kinds of services being sought. This can expedite the vendor selection process because it is likely that a vendor who is already providing similar required services will have quality assurance procedures in place that can be "customized' to meet the needs of the DES program.

As with equipment and supplies, the process for procuring services is controlled by Federal regulations and by State statute and rules. The references of the major laws and regulations are as follows:

- 40 CFR Part 33 - Procurement Under Assistance Agreements
- RSA 21-I:22 - Procurement of Engineering Services
- Part Adm 311.07, N.H. Code of Administrative Rules - Service Contracts

40 CFR Part 33 outlines the general federal regulations for procuring all types of services and material. State laws and regulations give more specific requirements.

RSA 21-I:22 deals specifically with the procurement of engineering services. In summary, this process involves issuing a request for proposal (RFP), rating each firm that responds (using any necessary quality-based criteria), selecting a short list of qualified firms, evaluating these potential

contractors via project presentations, and conducting final negotiations with the highest-ranked firm. In this manner, DES ensures that professional services will be provided with appropriate quality, and at a reasonable cost.

Part Adm 311.07 outlines the process for obtaining approval of service contracts through the N.H. Department of Administrative Services and the N.H. Governor & Council. See Appendix F for a copy of a standard State Contract with terms/conditions and sample exhibits included.

DES program managers initiate the procurement process by following the requirements of the above laws and regulations. It is the program manager's responsibility to write the scope of services for the contract (typically provided with the standard state contract as "Exhibit A – Scope of Services") to ensure that the vendor selected will be able to perform the desired services in conformance with specific regulations, methods, technical manuals or quality assurance procedures applicable to the project. It is also the program manager's responsibility to monitor the contractor throughout the contract period to make certain that the work is being performed (and satisfactory work products are being produced) to the standards specified in the scope of work. This is also accomplished by making contract payments, (as required as part of standard state contracting procedures in "Exhibit B – Payment Schedule"), contingent upon inspection and review of expected work products and outputs. If the work products or outputs are deemed satisfactory by the responsible program manager, the contractor invoice is dated and signed, an account number is provided, and the invoice is sent to the appropriate accounting staff depending on if the contract is based on federal or state funds. Any unique aspects of the contract are included as "Exhibit C – Special Conditions."

CHAPTER 6   DOCUMENTS AND RECORDS

6.1   DOCUMENTS AND RECORDS OVERVIEW

Each program within DES shall maintain a document and records system to suit its particular circumstances that complies with all applicable requirements. The system shall produce unequivocal, accurate records that document all program activities.

In general, data will be retained by the DES program that generated it. The data is usually kept in the site/case file or electronic database. For laboratory tests, the laboratory will keep its own separate record of the data.

It is preferable for data to be recorded in both paper and electronic form, although this may not be possible in all cases. Electronic data should be converted and/or updated to newer versions or technologies at least every three to four years so that the data is always in a readily retrievable format that has kept pace with ongoing information technology software and hardware advances.

Records must be kept in such a way that they can be retrieved. Each program will determine its own filing system, but ease of retrieval must be the goal. This applies to both paper and electronic files. If security is an issue, tools such as locks and passwords should be used. Hiding files is not proper security, and is not allowed.

Keeping needless multiple copies of data is discouraged in the interest of saving space and paper. In general, each program should only have one copy of any data set.

It should be noted that handling of documents used to support enforcement cases are subject to separate requirements. See Appendix G for Chapter V of the DES *Compliance Assurance Response Policy (http://www.des.nh.gov/legal/carp/carp-ch-5.pdf)*.

6.2   RETENTION OF DATA

All data should have a documented retention schedule. Some DES programs will need to keep data in perpetuity. Some programs have specific statutory or regulatory requirements for record retention. Other programs do not have any program-specific or other statutory/regulatory data retention requirements. In all cases, a data retention decision must be made, and it must be recorded.

Where a program manager determines that specific data is of extremely high value, a copy should be made and stored in a separate building. Program managers should be aware that this is sometimes done in the course of business. For instance, when a case is referred to the NH Department of Justice (DOJ) for enforcement assistance, a copy of the file is physically sent off-site to the DOJ office. Program Managers should keep records as to the exact disposition and location of the data deemed of such high value.

6.3   PAPER-BASED RECORD-KEEPING SYSTEM

   a. The records shall clearly indicate the date of the field observation, sample collection, sample preparation, equipment calibration or testing, and other related activities.

b. The records shall include the identity of personnel involved in making observations, collecting field data, sampling, preparation, calibration, or testing.

c. The record-keeping system shall facilitate the retrieval of all working files and archived records for inspection and verification purposes.

d. All documentation entries shall be signed or initialed by responsible staff. The reason for the signature or initials shall be clearly indicated in the records such as "sampled by", "prepared by", or "reviewed by".

e. All generated data except those that are generated by automated data collection systems, shall be recorded directly, promptly, and legibly in permanent ink.

f. Entries in records shall not be obliterated by methods such as erasure, overwritten files, or markings. All corrections to record-keeping errors shall be made by one line marked through the error and initialed. These criteria also shall apply to electronically maintained records, where applicable.

6.4   COMPUTER AND ELECTRONIC DATA REQUIREMENTS (See Section 7.6, "DATA ENTRY FOR DES DATABASES")

a. All computer software must have documentation associated with it and must be adequate for its intended use. The DES Information Resources Management Unit within the Office of the Commissioner is responsibility for cataloging and maintaining proper documentation.

b. Procedures must be established and implemented for protecting the integrity of data; such procedures shall include, but not be limited to integrity of data entry or capture, data storage, data transmission, and data processing.

c. Necessary environmental and operating conditions must be maintained to ensure that computer and automated equipment functions properly and that the integrity of calibration and test data is not compromised.

d. Procedures must be implemented for maintaining the security of data, including the prevention of unintended deletion and unauthorized access to, and amendment of, computer records.

6.5   RECORD MANAGEMENT AND STORAGE   (See Sections 6.2, "RETENTION OF DATA", and 7.8, "NETWORK MANAGEMENT, DATA BACK UP, AND DATA RECOVERY PROCEDURES")

a. Records shall be maintained in a safe, secure, and retrievable manner.

b. Records stored only as electronic media must be supported by the hardware and software necessary for retrieval.

c. Records should be saved to the DES network, not to local hard drives, to ensure that the data will be backed up to tape.

d. Records that are stored or generated by computers shall have hard-copy or write-protected back-up copies

e. Access to archived information shall be documented with an access log.

6.6   QUALITY SYSTEM DOCUMENTS & DOCUMENT CONTROL

a. All controlled documents (i.e., those covered under the document control aspect of the DES Quality System) related to DES's quality system, including this QMP, will be posted on DES's Intranet.

b. Controlled documents typically include the following:

    1) The DES QMP;
    2) All QAPPs; and
    3) All other monitoring, sampling or analysis plans, and SOPs developed under the QMP.

c. The reports of programs' annual reviews and the QA Manager's annual Quality Assurance Status Report are not considered 'documents', and therefore will not be posted on the DES Intranet.

d. As experience and circumstances dictate, additional documents or classes of documents or records may be added to the list of controlled documents.

e. After drafting by program personnel, with assistance as needed by the QA Team, all controlled documents must be approved by the QA Manager before use.

f. When a document is updated, following approval of the updated document by the QA Manager, and if necessary, by USEPA, the most recent copy of the document will be distributed to program staff. Electronic distribution is encouraged. All previous, outdated versions of the document will be discarded, except that the QA Manager will retain one electronic or hardcopy of all obsolete documents for archive purposes.

g. The Program Manager has the responsibility for distributing updated documents within the program. Appropriate staff distribution lists should be documented and maintained. The QA Manager has the responsibility to ensure that documents posted on DES's Intranet are the most updated version.

h. The Program Manager also has the responsibility for ensuring that their staff uses the most recent documents. Obsolete documents must be removed and destroyed, except for the single copy kept by the QA Manager. Electronic document control is very useful in this regard; it should be used whenever possible.

i. All controlled documents will be marked with a revision date, using a footer at the bottom of each page of the document.

j. The QA Manager will retain copies of the annual Quality Assurance Status Reports and of the programs' annual reports.

CHAPTER 7   COMPUTER HARDWARE AND SOFTWARE

This chapter describes how DES manages its computer hardware and software to ensure that it supports environmental data quality needs of programs throughout the Department. Computer hardware and software issues covered under this section, include, but are not limited to, design, data handling, data analysis, modeling of environmental processes and conditions, operations, and data bases containing environmental data.

Note: The Information Resources Management Unit no longer exists within DES as it previously did due to the fact that in early 2003, the State of New Hampshire went through a centralization of Information Technology resources and is now fully reorganized under a new Governor's Office of Information Technology (OIT).   OIT is currently in the process of developing new relationships with each agency's previously separate information technology infrastructure. While the reorganization has been completed and is wide-spread, the general quality assurance-related information technology functions and processes described in the pertinent QMP chapters remain largely the same.   The next QMP annual review (in 2004) will include a more detailed and up-to-date description of the final impacts of the OIT reorganization.

7.1   *DES STRATEGIC INFORMATION TECHNOLOGY PLAN*

As described in DES QMP Section 2.1.2.1, the Department's Information Resources Management Unit (IRMU), organizationally located within the Office of the Commissioner, is responsible for all computer hardware and software and related issues, including purchase, installation, maintenance, technical support, and database development.   IRMU must operate under statewide policies and procedures for computer equipment and use as required by the New Hampshire Department of Administrative Services, Division of Information Technology Management.   Specifically, IRMU's activities are directed by the *DES Strategic Information Technology Plan (SITP)*, SFY 2002-2005, or later version, which is located on the DES Intranet.

In 1997, DES drafted a new five-year strategic information management plan to build a framework for the migration of its information management systems and to take a more systematic approach to improving the manner in which environmental information was managed. The DES *SITP*, building upon the 1997 and 1999 *SITPs, co*ntains the same five broad goals, as follows.

  a) Improve DES effectiveness by further analyzing environmental information;
  b) Improve environmental measurement and performance;
  c) Facilitate public access to environmental information;
  d) Improve the management, coordination, and measurement of agency programs; and
  e) Reduce the reporting burden on the regulated community.

The DES *SITP* provides a comprehensive summary of current IT services throughout the agency, and documents a systematic and integrated plan to improve guidelines for agency development of information systems, reduce barriers to information sharing, and optimize the Department's use of IT resources.

The Department maintains an Information Management Steering Committee comprised of an administrator from each Division. This committee, along with the IRMU Administrator, reviews and approves recommendations for information system changes to support the vision, mission, and guiding principles of the DES Strategic Plan. This committee, along with a team of senior management staff, is committed to provide direction and guidance to IT planning and to supporting this agency's business needs with cost-effective IT solutions.

7.2   IRMU SERVICES

IRMU provides both centralized and decentralized functions. Administrative and technical service functions are typically operated and located directly within the central IRMU infrastructure. However, a number of IRMU staff are assigned to provide dedicated technical and database development support to a particular user group (at the Division, Bureau, Section, or Program level) within the Department. Providing dedicated staff to specific user groups allows for more direct, timely, specialized, and efficient customer service for these user groups, each of which have unique computer hardware and software needs.

7.3   IRMU HELP DESK

In May 2000, IRMU instituted a Department-wide Help Desk system which includes a voice and e-mail user interface and an associated Oracle-based database system for tracking, responding to, and completing all requests for software- and hardware-related issues. This database system allows all technical inquiries and purchase questions to be centrally managed and processed in an efficient manner. By tracking problems, solutions, and requests, the system also facilitates the transfer of knowledge to technical support staff who can be more responsive to end users.   The Help Desk, in combination with centralized hardware and software acquisition, hardware and software compatibility, database development, and data backup procedures described below, have resulted in an efficient system that helps to ensure that any hardware or software issues, or other issues related to changing needs or problems can be effectively addressed.

7.4   HARDWARE AND SOFTWARE ACQUISITION

Hardware and software purchases and contracting for IT services at DES must be done in accordance with IRMU procedures as well as those listed in Chapter 5 above. The IRMU's purchasing procedures, as well as two documents titled, "DES PC Specifications" and "Recommended Products," can be found on the DES Intranet for easy access. Two related IT policies, "Computer Hardware Policy" and "Computer Software Policy" are also located on the DES Intranet site. In addition to meeting all the requirements set forth in the *SITP*, and the computer hardware and software-related policies, all hardware and software purchased by DES must follow the requirements set forth in the current State computer contract. As a general rule of thumb, all hardware and software purchases, as well as installation and maintenance are fully subject to internal control, review, and approval by IRMU.

The purchasing process begins with the requesting staff seeking assistance from the DES Help Desk and/or the IRMU staff assigned to their particular bureau, section, or program for the purpose of ascertaining specific data quality and system performance needs. Once the data quality and system performance needs have been determined, the requesting staff must provide written documentation of their need for computer hardware and/or software. Such documentation shall consist of an acquisition

form and will provide information on the following items: 1) Description of the item to be acquired; 2) Need and justification for the acquisition; 3) Total cost of the purchase; 4) Compatibility with existing hardware and software; 5) What training will be required to make effective use of the technology; and 6) What alternatives were considered. Once all of this information has been gathered, the requesting staff must get Division Director approval for the acquisition.

If the acquisition is less than $5,000, the IRMU Administrator, IT Systems Manager, or Development Manager will review the request to ensure conformance with *DES' SITP,* to confirm that minimum hardware specifications have been met, and that all required information has been submitted, and then forward it to the DES Administrative Services Unit for processing of the order. See Section 5.1 of this QMP, "Procurement of Equipment and Supplies".

If the computer hardware or software purchase is over $5,000, the IRMU Administrator, IT Systems Manager, or Development Manager must review the *DES SITP,* to determine if the purchase is in alignment with the projects outlines in the *SITP*, and also must make a recommendation to the IRMU Administrator (if not initially reviewed by the same) to approve or disapprove the acquisition. For purchases over the $5,000 threshold, final approval must be granted by the Division of Information Technology Management (DITM) via a standard justification procedure. IRMU prepares the DITM request for approval packages for all requesting divisions, bureaus, sections and/or programs and forwards them to the DITM. Once such approval is granted, the purchase request will be forwarded by IRMU to the DES Administrative Services Unit for processing.

Upon receipt of the acquired hardware and/or software, it will be barcode labeled or given a DES identification tag, and added to the Department's inventory. IRMU IT Systems staff will coordinate the proper setup and/or installation of all hardware and software purchased, and will ensure that related warranty and registration information has been properly processed. Software and associated documentation are typically stored and maintained by IRMU.

7.5   MEETING DEPARTMENT STANDARDS AND USER DATA REQUIREMENTS FOR HARDWARE AND SOFTWARE

As described above, there are several procedures already in place to ensure the all hardware and software purchased or used at DES meets minimum performance and compatibility standards. As an integral part of these procurement procedures, requesting staff will meet with appropriate IRMU staff (i.e., those staff assigned at the Division, Bureau, Section, or Program level) to discuss in detail individual performance and data quality needs. This internal consultation will also take place in those instances where software will not necessarily be purchased, but received from outside organizations such as the USEPA for in-house use. Regardless of how the hardware or software is procured, the results of this internal consultation are to be documented in order to ensure that specific user needs have been met.

An important function of IRMU is the development of customized in-house applications throughout the Department. These databases are diverse and essential to Department operations. They serve internal administrative needs (e.g., accounting, time allocation, staff leave, etc.) as well as specific environmental program needs. Many DES programs could not function without these databases, most of which manage key environmental information such as ambient and point-source monitoring data, modeling data, permit and inspection activities, enforcement case tracking, site-specific conditions, site-specific clean-ups, etc. Many of these databases allow for, and require communication with, a

number of databases and systems outside of the Department for the purpose of uploading and downloading data with environmental databases managed by the USEPA.

Upfront and on-going communications between Program Managers and assigned IRMU staff is essential to make sure that any new application developed internally fully meets the end user's data quality and system performance needs. The Help Desk system and dedicated IRMU staff are resources that will ensure that those applications are maintained, updated, and otherwise continue to deliver the level of service, functionality and quality data desired.

7.6   DATA ENTRY FOR DES DATABASES (See Section 6.4)

Programs must have procedures in place to ensure that errors or inconsistencies are minimized or eliminated during data entry into the many DES computerized data systems. Each computerized data system, which is uniquely designed to handle data specific to a particular program, may have built-in mechanisms to screen for valid data and appropriate data relationships. If not, procedures must be in place, and staff training provided, to ensure that program staff are able to effectively evaluate the quality of the data being entered and to spot and correct potential errors or inconsistencies. Specific procedures and processes for assuring accuracy and timeliness of data entry will vary with each program.

7.7   PROCURING INFORMATION TECHNOLOGY-RELATED SERVICES

Procuring IT-related services essentially follows the procedures outlined above for "Hardware and Software Acquisition, Section 7.4, in combination with those described in Section 5.2, "Procurement of Services." Program staff must consult with IRMU staff to determine project needs and specifications. A formal request and approval process is already in place, with checks and balances being provided by IRMU, the Division of Information Technology Management, and depending on the dollar amount and type of requested service, DES Commissioner and/or New Hampshire Governor and Council sign-off.

7.8   NETWORK MANAGEMENT, DATA BACK UP, DATA RECOVERY PROCEDURES, AND VIRUS PROTECTION

Section 5.4 of the *DES SITP* - "Business Continuity Plan" provides specific operating procedures to help minimize the loss of key electronic data across the many important databases throughout the Department. These procedures include how frequently the back up functions should be performed and how the back up tapes and other data retrieval methods are to be handled, labeled, and stored, both on-site and off-site, all in an effort to have, within a worse case scenario, no more than one work day's worth of data loss. The DES *SITP* outlines the Department's multi-tiered approach to disaster recovery for data systems, including contingencies for both hardware and software failures due to power interruption and other scenarios. Finally, IT staff maintains an aggressive computer virus protection program, utilizing the most up-to-date virus protection software in order to keep the 650-user server, desktop, laptop, and related peripheral network operating smoothly and safely and ensuring that key data and systems remain uncorrupted.

CHAPTER 8   PLANNING AND IMPLEMENTING QUALITY PROCESSES

Planning and implementing environmental data operations must be done in a systematic way in order to ensure that data or information collected are of needed and expected quality for their desired use. Following such a process helps to ensure the ultimate success of any individual environmental data operation. Included in this chapter is guidance on processes that program managers must follow before and during data gathering or analysis.

Specifically, Chapter 8 presents an overview of the steps involved in the planning and implementation aspects of DES's Quality System (Sections 8.1 and 8.2). It also provides detailed descriptions on how program staff are to address:

a) Data quality objectives (DQOs), including when documents such as QAPPs are needed (Section 8.3);
b) Sampling (Section 8.4);
c) Field testing (Section 8.5);
d) Fixed laboratory testing (Section 8.6);
e) Environmental condition data (Section 8.7); and
f) Reporting of Results (Section 8.8).

It is recognized that in addition to planned and long-term routine environmental data operations, there are also instances where the immediate need for a data operation arises from an unplanned event, emergency situation, or some other cause that imposes a constraint on the amount of time available to meet the requirements of the formal systematic planning process and the development and approval of QAPPs and similar internal documents as described below. Staff shall use their best judgment in determining the flexibility needed from the requirements of the following sections in these instances, and document the decision in a memo to the file for that data operation.

8.1   PLANNING OVERVIEW

The primary DES documents used as planning inputs to the overall system are: 1) department-wide and division-wide strategic planning work; 2) budget documents; 3) the Performance Partnership Agreement (including a comprehensive set of workplans for all DES Divisions and Bureaus) and Performance Partnership Grant with USEPA New England; 4) local, state, and federal rules and regulations; 5) technical standards used by the various programs; and 6) the various QAPPs already in place.

The key staff in the area of planning and implementing quality processes are the program managers and the project managers that a program manager assigns to complete individual tasks. Using the documents referenced above, and considering the goals of an individual project, the following steps must be followed by program managers or their designees in planning any of the processes required by this QMP.

The overall planning goal is to produce written documentation describing how the data will be acquired, analyzed, evaluated, and assessed against its intended use and the quality performance criteria. The form of this document will be program-specific. In some cases, memos to staff will suffice.

However, it may be necessary for the program manager to develop more specific quality assurance documents. One of the most common such documents is the Quality Assurance Project Plan (QAPP), which is typically required in USEPA-funded activities. QAPPS will be prepared in accordance with this QMP and two relevant USEPA documents: a) *USEPA Region 1 - New England Compendium of Quality Assurance Project Plan Requirements and Guidance, October 1999, Final,* or later edition; and b) *USEPA Requirements for Quality Assurance Project Plans, QA/R-5, March 2001,* or later edition). The QA Manager and Team are a resource to program managers tasked with developing QAPPs and related documents. A QAPP should be considered when:

a) A funding agency requires it.
b) There are serious public health and/or environmental impacts.
c) A matter is under litigation, enforcement or a court-ordered schedule, and therefore may be highly scrutinized.
d) A program is being implemented for the first time; or
e) The program has a research aspect.

DES programs that are required to develop QAPPs by EPA or other funding agencies, but have not yet done so will provide the DES QA Manager with a development schedule and complete such QAPPs following this schedule. All draft QAPPs must be reviewed and approved by the DES QA Manager (via signature on the QAPP Approval Page) prior to submittal to EPA for final review and approval. The Assistant DES QA Manager will conduct the required review and approval step in the event of the DES QA Manager's absence.

The QA Manager, in cooperation with the relevant program managers, is responsible for tracking the development of any required QAPPs. An in-house QA tracking system (currently a table in Microsoft Word format) is the tool for maintaining such information. Per DES's agreement with EPA, the DES QA Manager will coordinate and submit to EPA quarterly updates of the DES QAPP Inventory Table, which currently includes detailed listings of all pending and completed QAPPs that DES is either directly, or indirectly (*i.e.,* under a grant and/or sub-contract arrangement), through a grant process or other agreement.

This planning task can be done at two different scales, which are described in terms of QAPPs; the Generic, or Program QAPP, and the Project-Specific QAPP. The Project-Specific QAPP is a single planning document that covers all the QA issues for a single, finite project. This has been the most commonly followed model.

However, a Generic or Program QAPP, can be useful. The Generic QAPP is useful when a program knows it will be doing certain work tasks repeatedly. Groundwater sampling at Superfund sites is an example – the actual sampling and testing is similar at all sites, so the planning document is prepared once. This Generic QAPP can cover description of the program and its organization; general personnel information indicating the types of positions/titles that will be assigned various tasks; data quality objectives; documentation and record needs; data assessment and corrective action procedures; and monitoring and sampling procedures. The Generic QAPP is reviewed for appropriateness annually and has a five-year life span. Using Generic QAPPs can save a program much document preparation time when the program knows that similar work will be repeated.

In this case however, for each individual project (or individual site) to continue the Superfund example, another simpler document would be required. The purpose of this document, which is

defined in DES's QA System as a Sampling and Analysis Plan (SAP) or Site Specific Plan (SSP), is to record the information for a specific job that is not included in the Generic QAPP. SAPs or SSPs will be prepared by the Project Manager, in conjunction with the appropriate field staff, reviewed and approved by the Program Manager prior to the fieldwork, and a copy retained in the program files. A copy of the approved SAP/SSP will be sent to the DES QA Manager. The Project Manager is responsible for communicating the SAP/SSP and other QA/QC requirements to other field sampling staff that may be working on the project.

The SAP/SSP will reference its parent Generic QAPP. Deviations from, and stipulations not addressed in the Generic QAPP, will be incorporated into the SAP/SSP. Additional information will be considered and added on a case-by-case. Also, the Project Manager will be responsible to locate or produce procedures for any deviations and stipulations, in particular, sampling and testing required for a project that is not described in the Generic QAPP. SAPs/SSPs may include some or all of the following information:

- Site information: Site map, sampling location plan, project description, and schedule;
- Personnel information: Name and/or title of the individuals conducting the work; and
- Site-specific variances: Any issue with the site that requires a variance form the work anticipated and described in the Generic QAPP, (e.g., new analytes or media, new equipment, etc);

As the SAP only applies to a specific project, like the Project-Specific QAPP, its life span is the same as the project to which it applies. Therefore, when work is done under formal QAPPs, there are two scenarios that can be followed: Either a Project-Specific QAPP, or a Generic QAPP *and* a site-specific SAP, if necessary.

Regardless of the final form the planning document takes, (whether it be a required, formal project-specific or generic program QAPPs or a DES-only quality assurance document) it will fulfill requirements described in Sections 8.3 through 8.8 of this QMP, and as such must be sent to the QA Manager for review and approval. The Assistant DES QA Manager will conduct the required review and approval step in the event of the DES QA Manager's absence. QAPPs required by USEPA will be sent to USEPA for approval by the QA Manager, or if agreed to by the QA Manager, by the program manager. Approval of the planning document is required before the work described in the plan can be initiated.

The quality planning steps listed below apply to many work tasks, especially writing new SOPs and planning new work.

1. Identify (and involve) an individual project manager. Other parties must also be identified and involved as appropriate, such as the sponsoring organization (if apart from DES) and its responsible officials, DES project personnel, and other stakeholders such as legislators or other government agencies, scientific experts, community activists, etc. The intent is to identify all customers for the data and all suppliers of the data. The program manager is responsible for this step.
2. Describe the project goal, objectives, and questions and issues to be addressed in writing and communicate them to the parties identified in step 1. Consider the potential uses of the data. The project manager is responsible for this step; the program manager reviews and approves it.

3. Identify the project schedule, required resources (including budget), milestones, and any applicable requirements (e.g., regulatory and contractual requirements). The project manager prepares this for the program manager's approval.

4. Identify the type and quantity of data needed and how the data will be used to support the project's objectives, and communicate this to relevant parties. This is the program manager's responsibility, but should be a collaborative process among parties identified in step 1. The data must meet the needs of the intended audience (*i.e.,* its "customers"). This is not to presuppose what the data will show but rather to ensure that the questions that need to be answered can be answered with the data to be gathered. Also, this step can identify when work is not necessary – if there are no customers for the data, then the program manager should consider putting the resources to other uses.

5. Identify the performance criteria for measuring data quality, including any statistical methods proposed, and ensure that the criteria are understood by relevant parties. This is the program manager's responsibility, but should be a collaborative process among parties identified in Step 1.

6. Identify the QA/QC activities necessary to assess the quality performance criteria (*e.g.,* QC samples for both the field and laboratory, audits, technical assessments, performance evaluations, etc.) and ensure that they are understood by relevant parties. This is the project manager's responsibility, although he/she should consult with laboratory or other parties as needed.

7. Determine how, when, and where the data will be obtained (including existing data) and identify any constraints on data collection, and document these in writing. This is the project manager's responsibility. The use of existing data is strongly encouraged, provided its quality is known and is appropriate for the project; new data should be used to fill gaps in existing data or to determine if the situation described by the existing data has changed. When new data is to be generated, the sampling and analysis procedures must be documented. Design of a sampling and analysis program must explicitly include how it is anticipated that the program will meet the DQOs.

8. Consider whether it is appropriate to evaluate and qualify data from non-DES sources, especially data gathered or analyzed by contractors, volunteers or other organizations such as universities or other research organizations. The project and program managers share this responsibility and should document their decisions. The QA Team and DES management must be involved as necessary to ensure proper relationships with the outside parties. This issue must receive special attention from the project and program managers to ensure that this class of data is usable and defensible. As noted in other chapters of this QMP, training, procurement of services, record keeping, and assessment and corrective actions are all areas that must be specifically addressed. When volunteers are used, training and oversight of the volunteers should be a focus. Volunteers are an enormous resource to DES, but program managers must ensure that volunteer-generated data remains useful to the program and not be vulnerable to criticism by potential data reviewers.

8.2 IMPLEMENTATION OVERVIEW

The DES Senior Leadership Team is ultimately responsible for assuring that all work DES undertakes is done to appropriate standards. That responsibility is delegated to various program managers through the structure of DES. The QA Manager, reporting to the Assistant Commissioner, is responsible for ensuring that all DES staff understand the DES quality system. The QA Manager, with the assistance of the QA Team, provides assistance to the program managers to implement the DES quality system and reviews and approves the various required documents.

In the absence of directions otherwise in a program or project-specific document, the following structure applies:

1. Program managers are responsible for ensuring that written procedures are prepared and that staff are adequately trained in their use.

2. Project managers are, in general, responsible for ensuring that the actual work is carried out properly, and for alerting their chain of command of problems as they arise. In that case, the program manager must assist the project manager to address the problem. The QA Manager will assist the program manager as requested. Chapter 9, "Assessment and Corrective Action," discusses this aspect in more detail. All such corrective actions must be documented in the annual report the program manager makes to the QA Manager. The program manager and the project manager are responsible for communicating changes to relevant staff. The project manager ensures that obsolete procedures are removed;

3. Program managers are responsible for annually reviewing the quality system within their programs and reporting the results of that review to the QA Manager. Such a review of the quality system shall include an assessment of all multi-year, approved project-specific QAPPs and generic program QAPPs. A convenient time (due to its occurrence during the winter months) to conduct an annual QAPP review is as part of the required DES Annual Quality System Program Self-Assessment, the results of which are due to the DES QA Manager by 1/31 of each year (See Section 9.0). The results of this review must be documented and forwarded to the DES QA Manager in the form of a memo outlining any changes necessary to ensure that the processes and procedures outlined in the QAPP will continue to result in high-quality data that can be used for its originally-intended purpose. If the needed revisions/updates are considered minor and do not affect data quality, a memo summarizing them will suffice. If the revisions are major (*i.e.,* they are substantive and *will* affect data quality), then the results must be summarized and the QAPP revised for re-review and re-approval via the DES QA Manager and relevant USEPA QA staff. The results of all reviews associated with formal, USEPA-approved QAPPs, (and any revised QAPPs) will be forward to USEPA QA staff by the DES QA Manager for their QAPP records.

4. Program managers are responsible for ensuring that their project managers and other staff have the information and resources necessary to do their work in accordance with all DES regulations, policies and guidance that apply to technical issues and to QA/QC issues;

5. DES staff are individually responsible for carrying out the tasks assigned to them in accordance with DES policy and their supervisor's instructions, which includes instructions described in this QMP related to data quality; and

6. In the case of volunteers or data gathered by others, the project manager is responsible for reviewing the data and flagging or removing data of questionable or unusable quality. All such instances must be annotated so that persons reviewing the data will understand what happened and what the data limitations were. Any such instance not deemed to be isolated must be addressed through the Assessment and Corrective Action processes outlined in Chapter 9.

8.3   DATA QUALITY OBJECTIVES

Before any sampling, monitoring, or testing is conducted, the program manager must determine, document, and communicate data quality objectives (DQOs) to the relevant program staff, participating organizations, and laboratory staff (EPA document G-4, *Guidance on Data Quality Objectives*). All sampling, testing, and recording of environmental data is done for a purpose; data is not gathered for its own sake. The procedures used for the effort must be appropriate for the use of the data. The purpose of the sampling or testing must be recorded.

In order to determine DQOs, program managers must consider and document decisions regarding the following:

     1)   What decisions will be made using this data;
     2)   What is to be communicated by using this data;
     3)   Will a prospective decision remain the same regardless of what data the shows; and
     4)   If there is nothing to be communicated by this data, is it necessary to gather the particular data.

DQOs should be discussed with program staff, participating organizations, and laboratory staff so that methods and detection levels can be agreed upon prior to sampling. The laboratory should also be included in any discussion of time frame for sampling and numbers of samples so that laboratory capacity will be available to handle the influx of samples from a large project. These steps are imperative to assure the reliability of the data.

As described in Section 8.1, however, it may be necessary to develop a QAPP, which will be prepared in accordance with this QMP and with *USEPA Region 1 - New England Compendium of Quality Assurance Project Plan Requirements and Guidance, October 1999, Final,* or later edition, and *USEPA Requirements for Quality Assurance Project Plans, QA/R-5, March 2001,* or later edition.

8.4   SAMPLING

Sampling is the collection of material to be tested or examined (refer to Section 8.7 – "Environmental Condition Descriptions and Data" for considerations more specific to taking measurements such as water levels in the field). The object of any DES sample collection effort is to generate data that can be communicated and used to support DES decisions and actions.

Each program manager is responsible for ensuring that sampling activities are defined, controlled to the extent required, verified, and documented. Written sampling procedures must be followed in all instances. Wherever feasible, sampling procedures written by others, such as *Standard Methods for the Examination of Water and Wastewater*, or various USEPA guidance documents, should be included or reference in the procedures. In those cases, care must be taken to ensure that the most up-to-date, approved edition is used. The written procedure must be a stand-alone document sufficient to allow staff to do the work to the required quality standard.

Where sampling procedures written by others are not available, the program manager must ensure that a program-specific procedure is produced and made available to staff. Existing procedures for similar testing should be used as models whenever possible. The program manager prepares, and has responsibility for, the procedure. The QA Manager and Team are available to assist with developing the procedure. The QA Manager reviews and approves the procedure.

The sampling procedure to be used must be reviewed and agreed upon before leaving for the sampling trip. This is necessary to avoid confusion in general, but especially to ensure that proper sampling containers and equipment are taken. When samples are to be returned to the laboratory, it is recommended to check with the laboratory's personnel before going on the sampling trip. See Section 8.7 of this QMP for information on taking field notes.

When deciding what procedure to use for any sampling effort, the following considerations must be factored in:

a) If the data may be used to support an enforcement case, documentation and adherence to procedures becomes even more important. See Appendix E for DES's *Assurance and Response Policy (CARP), Chapter IV - (http://www.des.nh.gov/legal/carp/carp-ch-4.pdf)*.

b) Sampling personnel must be trained in the use of the equipment, and records of the training must be kept.

c) Quality Assurance/Quality Control steps necessary to meet the DQOs must be established.

d) If the location is being sampled for the first time, be certain to record the location and mark it in the field as necessary.

e) When samples are to be taken at the same location again, be certain that the location is marked and accessible. Careful notes should be taken to allow others to find the location.

f) How the samples will be transported to the testing or examination location must be established.

g) If other agencies or parties will be taking split samples, appropriate arrangements must be made. DES will give these other parties full cooperation.

h) If people living near the sampling location, or local authorities, are interested in the sampling effort, the program manager must make appropriate arrangements for communications with any affected parties and the public. The decision regarding such communications should be recorded, and a log maintained for all communications. All DES personnel must be aware that they work for the people of New Hampshire and must be informative and polite.

When sampling is done by others, either by private parties (including volunteers) who are reporting results to DES or by parties such as contractors working as DES proxies, the same sampling procedure issues apply. It is the program manager's responsibility to ensure and verify that these other parties are using appropriate written sampling procedures. This may include review and approval of the other party's procedure.

Sampling procedures, together with any required Health and Safety Plan, must include information on choice of sampling equipment, decontaminating or discarding the sampling equipment, personal protective clothing or equipment needed, containers and preservation needed for the sample, any requirements related to transportation to the testing location, and field documentation requirements. Sampling procedures, training records and other documents described in this section, are subject to the requirements in Chapter 6 of this QMP, "Documents and Records."

As part of annual program assessments, program managers must review their <u>sampling procedures</u>, and the results of that review (with recommendations for improvements or other changes) must be forwarded to the QA Manager. This review must include checking to be sure that the QA/QC measures in the procedure are sufficient to meet the established DQOs. Where procedures produced by others are used, a review must also be done, but it can be limited to ensuring that the most recent guidance is still being used**.** As described in Chapters 9 and 10, the QA Manager and Team will evaluate the review and assist the program manager to implement the recommended changes.

8.5   FIELD TESTING

Samples may be tested or examined in the field, that is, in close proximity to the location where the sample was taken. The decision as to whether field or fixed laboratory) testing is appropriate is the responsibility of the program manager. Program managers should be aware of technological advances which allow for more high-quality field testing than has been available in the past.

Where samples are examined or tested in the field, documentation must take place immediately upon testing, following established guidance for documentation. See Section 8.7 of this QMP for information on taking field notes. The field personnel must not rely on memory and record results later. Field testing equipment must be calibrated per the manufacturer's recommendations, and calibration records must be kept. If calibration is done in the field, staff should keep this information with the field notes and put a copy of these calibration records in the file.

When deciding what procedure to use for any field testing effort, the following considerations must be factored in:

  a) It must be known what compounds are being tested for, in what medium, and what detection limit is needed to produce meaningful results.

  b) An estimate must be made of other compounds or conditions present that could interfere with detecting the compounds being tested for.

  c) A decision must be made about the need to split some samples so that confirmatory testing can be done in a laboratory.

  d) The environment in which the testing will take place – outdoors or in a truck or trailer must be considered. There may be special weather-related requirements for any piece of equipment such as a need to avoid low temperature or high humidity conditions.
  e) The personnel doing the testing must have the proper training to run the testing equipment in question. Training records must be kept.

When field testing is done by others, either by private parties (including volunteers) who are reporting results to DES, or by parties such as contractors working as DES proxies, the same procedure issues apply. The program manager must ensure that these non-DES parties are using appropriate written procedures. This may include review and approval of the other party's own procedure. Reference to other standard procedures is encouraged.

Field testing procedures must include information on the choice of equipment, calibration of the equipment and calibration records, other QA/QC needed to ensure that DQOs are met, decontamination requirements, personal protective clothing or equipment needed, containers and preservation needed, and any requirements related to transportation to the testing location. Field testing procedures, training records, and other documents described in this section, especially as regards recording of results and calibration records, are subject to the requirements in Chapter 6 of this QMP, "Documents and Records."

The testing procedure to be used must be reviewed and agreed upon before leaving for the testing trip. This is necessary to avoid confusion in general, but especially to ensure that proper containers and equipment are taken. It is recognized, however, that there may be unknown site conditions or circumstances, such as those associated with emergency response situations, that would preclude staff from being able to follow this strict guidance in all instances. In such situations, professional judgment and field staff experience would take precedence. After the incident, written documentation of any testing procedures conducted in the field, along with any relevant extenuating circumstances, must be provided.

The program manager must review field testing procedures generated within DES annually, and send the results of that review, with recommendations for improvements or other changes, to the QA Manager. This review must include checking to be sure that the QA/QC measure in the procedure are sufficient to meet the established DQOs. Where procedures produced by others are used, a review must also be done, but it can be limited to ensuring that the most recent guidance is still being used. The QA Manager and Team will evaluate the review and assist the program manager to implement the recommended changes.

8.6   FIXED LABORATORY TESTING

In many or most cases, samples will be tested or examined in an office or laboratory remote from the sampling location. As noted above, the decision as to whether field or fixed laboratory testing is appropriate is the responsibility of the program manager. Program managers should be aware of technological advances which allow for more high quality field testing than has been available in the past.

This section applies primarily to analysis conducted by the DES laboratory or its contractors, but is also relevant to other DES units conducting laboratory testing or otherwise examining samples in the office.

Whenever feasible, sampling procedures written by others, such as *Standard Methods for the Examination of Water and Wastewater* or various USEPA guidance documents should be used. In those cases, care must be taken to ensure that the most up-to-date, approved edition is used. Where these procedures are used, all requirements in them must be followed, including those for data validation. Such QA/QC methods as split, blank, and spiked samples, as prescribed in these

procedures, are key to ensuring reliable results, especially when testing at very low concentrations that are often significant.

Where testing procedures written by others are not available, the program manager must ensure that a program-specific procedure, which meets the program's data quality needs, is produced and made available to staff. Existing procedures for similar testing should be used as models whenever possible. The program manager prepares, and has responsibility for, the procedure. The QA Manager and Team is available to assist with developing the procedure. The QA Manager reviews and approves the procedure.

Because laboratory testing has been standardized to a great extent, DES program managers will often have fewer choices to make than in sampling or field testing efforts. When in doubt, program managers should consult with the Administrator of the DES Laboratory Services Unit or the Laboratory Services Unit QA Manager.

When deciding what procedure to use for any testing effort, the following factors must be considered:

a) It must be known what compounds are being tested for in what medium, and what detection limit is needed to produce meaningful results.
b) An estimate must be made of other compounds or conditions present that could interfere with detecting the compounds being tested for.
c) Staff must have the training needed to run the testing equipment in question. Training records must be kept.

When testing is done by others, either by private parties (including a number of volunteer organizations such as the Volunteer Lakes Assessment Program and the Volunteer Rivers Assessment Program) who are reporting results to DES or by parties such as contractors working as DES proxies, the same procedure issues apply. It is the program manager's responsibility to ensure that these other parties are using appropriate written procedures. This may include review and approval of the other party's own procedure. Reference should be made to other standard procedures being used.

Testing procedures must include information on choice of equipment, calibration of the equipment and calibration records, QA/QC measures needed to ensure that the DQOs are met, decontamination requirements, personal protective clothing or equipment needed, containers and preservation needed, any requirements related to transportation to the testing location, and field documentation requirements. Testing procedures, training records and other documents described in this section, especially as regards recordation of results and calibration records, are subject to the requirements in Chapter 6 of this QMP, "Documents and Records."

This section of the QMP also applies to other activities done in the office that cannot be described properly as laboratory testing – some examples would be examination of geological samples or examination of amphibians for deformities. In cases where an item or sample is examined, the observations should be recorded immediately. The purpose of the examination should be included in the record, along with standard items such as date, time, and name of staff person doing the examination. Basically, the same principals apply as for testing, but simplified to meet the situation.

The program manager must review testing procedures generated within DES annually, and the results of that review, with recommendations for improvements or other changes, must be sent to the QA

Manager. This review must include checking to be sure that the QA/QC measure in the procedure are sufficient to meet the established DQOs. Where procedures produced by others are used, a review must also be done, but it can be limited to ensuring that the most recent guidance is still being used. The QA Manager and Team will evaluate the review and assist the program manager to implement the recommended changes.

8.7   ENVIRONMENTAL CONDITION DESCRIPTIONS AND DATA

Many DES programs do not deal with environmental data in the sense of laboratory test results, of parts-per-million of a particular contaminant. For example, Wetlands Bureau staff gather information about environmental conditions -- they describe conditions at a given location at a point in time: is a location a wetland; has it been filled or dredged; how do conditions now compare to earlier conditions; and who and what is present. Other programs that conduct sampling in the more typical sense will also gather this environmental condition data as an adjunct.

This information is very important to DES, and can be especially important for enforcement purposes. DES staff should refer to Appendix E for Chapter IV of the DES *Compliance Assurance and Response Policy (http://www.des.nh.gov/legal/carp/carp-ch-4.pdf)*.

As with field sampling and testing, the purpose of the site visit or inspection must be understood in advance. Supervisors are responsible for ensuring that the field personnel, when taking measurements, know how to use the measuring tool in question. This can be quite simple in the case of a measuring tape, or equipment-specific training may be needed. If the latter is true, records of the training must be kept. Manufacturer's recommendations regarding use of the equipment must be followed.

For any field visit to inspect a site or to take samples or conduct field testing, the visit must be recorded in a field book or on a form specific to the program. Recommendations regarding field documentation include the following:

a) The date, time, weather conditions (temperature can be estimated), and the identity of persons present must be recorded;

b) The purpose of the visit must be recorded. This note-taking must be completed before leaving the site area. Notes added after leaving the site area should be marked as such;

c) Nothing is to be erased in a field book. When mistakes are made, the mistaken information is to be struck through with a single line so that it can still be read. The change is to be dated and initialed. Also, all unused lines in the field book should be struck through and initialed;

d) Other events or conditions should be noted. Personnel should be liberal in applying this principle. Items that do not appear to matter often do. An example would be: While sampling groundwater at a contaminated site, personnel note that children are riding bicycles across the back lot. This might not be noted, since it has nothing to do with the sampling. However, this is important information to site managers and risk assessors – it is evidence that children may be at risk, which may not have been obvious. Contacts with people working at the site, the site owner, neighbors, local officials, representatives of utilities or other government agencies, or other interested parties must always be recorded;

e) DES encourages the use of photographs and videotapes to record field conditions. Like the field notes, these visual records are public documents unless they become confidential as confidential business information or for enforcement purposes (again, see the Appendix E for Chapter IV of the DES *Compliance Assurance and Response Policy*). Film photographs should be printed in duplicate. Prints and copies of videotapes or electronic photographs may be sent to members of the public (especially the site owner) or other agencies, but the photographic negative or the original of the videotape or digital photograph must remain with DES unless specifically authorized by the program manager to be released;

f) Prints of photographs and the outside of video tape cassettes should be marked identifying the date the picture was taken, the site or case, and the name of the person who took the pictures. For video tapes, the person taking the pictures should start the shot by introducing him/herself and the location being shot;

g) Where there may be enforcement issues, the sole use of digital photographs is discouraged. Use of this medium may leave DES open to accusations of altering the picture, although DES staff are currently evaluating the feasibility of utilizing digital signatures for photographs;

h) As noted above, field notes or other field documentation must be considered in the public record. When requested, copies of the field documentation must be provided. The program manager and the DES Legal Unit will make the decision as to whether a particular record is to be treated as confidential;

i) A professional standard must be kept in note taking. Snide, angry or sarcastic notes should never be recorded. Comments on any person's character must be avoided. A strictly factual style should be followed. If necessary, record "He/She/I became agitated…" Any page of any field book may have to be defended in court. The appearance of personal animus can ruin an otherwise tight enforcement case;

j) Handwritten notes taken in the field are not expected to show the best penmanship. However, they should be legible to persons other than the note-taker. If legibility may be an issue, a typed transcript should be prepared and placed in the relevant site/case file. Typed transcripts should show the date of the field visit, the date of the transcription and the name of the person who did the typing;

k) Personnel who are in the field often should keep their field book with them whenever they are on duty and out of the office. Field personnel who "just happened to be passing by" obtain important information. In this case, such observations should be recorded, and reported to authorities as necessary, but personnel should not attempt to make a full inspection without notifying a DES office and having the proper training and equipment to address the situation at hand (*e.g.,* a septic system inspector who happens upon someone dumping hazardous waste should probably observe from a distance and report the situation to the office); and

l) Field books remain in the possession of staff. Copies of the field book pages are placed in site/case files as needed. Program-specific field forms are placed in the site/case file. Photographic and/or video documentation is also placed in the site/case file. See Chapter 6 of this QMP, "Documents and Records."

8.8 REPORTING RESULTS

When reporting the results of a measurement, test, or environmental condition, the object of the report is to clearly communicate the result to a specific audience. The following should be considered when reporting results:

a) Information should be included so that the person receiving the report will know that the data is of appropriate quality. QA/QC information must not obscure the data being reported;

b) Data must not be obscured by technical jargon, therefore when preparing a report the audience must be considered. For reports to the public, greater clarity is needed, and including detailed QA/QC information may not be necessary. When reporting to technical staff, full QA/QC information should be included;

c) Reports must include the name of the sampler/tester and of the reviewer. Dates and sampling/test methods must be included or referenced. Raw data should be included as necessary;

d) To allow for clear communication, tables and graphs are encouraged. Where past results are part of that summary table or graph, the report should include enough information to allow interested people to find that past data. Including the date of the past sampling/testing, the location and parameter being sampled/tested, and the person/unit that did the testing will probably be sufficient to meet this goal;

e) Sampling and test results must be reported to the designated program person. For instance, the DES laboratory will report to the person doing the sampling, unless specifically instructed otherwise. The program manager is responsible for instructing staff to forward results to the proper parties;

f) Where samples are collected on private property, the property owner must receive the results unless enforcement considerations dictate otherwise or the property owner has stated that he/she does not want the data. If a municipality has requested specific data, or entire classes of data, it must receive the results unless enforcement considerations indicate otherwise. In this case, the municipality should be informed, confidentially if necessary, that this information is enforcement-confidential; and

g) Data should be shared with USEPA and other government agencies freely. All DES staff must be guided by the knowledge that, in general, all DES data is public information. DES staff should be open, and in fact pro-active, in sharing our information. Again, this has to be done in a way that is communicative to the audience receiving the information while retaining technical rigor.

CHAPTER 9 ASSESSMENT AND CORRECTIVE ACTION

The process of assessing system performance and correcting deficiencies in an organized manner is fundamental to operating any quality system dedicated to continuous improvement, as the DES Quality system is. DES management is committed to this ongoing process and will provide the necessary resources to maintain an effective quality management system.

The QA Team and DES Senior Leadership Team will develop, approve, and document quality system review procedures designed to determine how effectively department programs and activities are achieving environmental goals and quality objectives. Such review procedures are based on quality objectives as documented in this QMP, QAPPs, SOPs, technical or professional standards, or other requirements set forth prior to work being performed.

Note: The following sections still reflect how assessments and corrective actions will be handled once the quality system has more fully matured. Because DES is still in the relatively early implementation stage of its quality management system, it will be necessary to phase in its system review procedures by initially focusing its efforts on a limited number (to be decided and documented at a later date) of environmental programs and activities. The DES quality management system review would include annual program reviews/self-assessments carried out in combination with a smaller set of formal internal audits conducted by the QA Team or other qualified staff. The results of the self-assessments and audits would feed the annual Quality Assurance Status Report described in greater detail in Chapter 10. In general, these assessments would take a number of forms within the Department, including:

- Internal program and project reviews/self-assessments;
- Review and validation of data;
- Quality management system reviews (based on program reviews and audits); and
- Employee performance appraisals;

9.1   INTERNAL PROJECT AND PROGRAM REVIEWS/SELF-ASSESSMENTS

Each program within DES will conduct annual internal reviews/self-assessments to verify that operations continue to comply with the requirements of the DES QMP, any required QAPPs or similar quality documents, SOPs, technical or professional standards, or other requirements set prior to work being performed. It may be convenient to review all multi-year, USEPA-approved project-specific or generic program QAPPs during the annual QA System Program Self-Assessment cycle given that they take place during the slower winter months (from a primary Spring/Summer sampling season perspective). Review to Section 8.2 Implementation Overview. These internal reviews may be undertaken at the data (see Section 9.2), project, or the program level. These annual program reviews, the results of which will be used as major input to the annual QMP system reviews and the Quality Assurance Status Report described in Section 9.3 and Chapter 10, must take place at least once per year.

It is the responsibility of the program manager to plan for and organize internal reviews. For consistency, the review will follow guidance in this QMP (in particular, Chapters 8 and 9) and the Implementation Guide included in Appendix H. The program manager will record the scope,

procedures and results of the review in memo form and send that memo to the DES QA Manager in a timely fashion. This memo will include a listing of the items reviewed, deficiencies found, reasons for the deficiency, and either a schedule for implementing corrective action, or documentation of the corrective actions taken (See Section 9.6). The program manager shall ensure that these corrective actions are completed within the agreed time frame. An electronic or hardcopy of the memo should also be kept on file with the originating program.

Although it may not be feasible due to the small size of many DES programs, staff should not directly review their own activities. Wherever possible, colleagues within a specific program, or in a related program, should make cooperative arrangements to conduct the self-assessments in such a way to avoid the biases associated with evaluating one's own work. The intent of this section is to maintain some separation between the activity/program under review and the assessor, while at the same time, not discouraging ongoing, more informal program evaluation (i.e., continuous improvement).

The QA Manager and Team are available to assist program managers with assessments and with identifying corrective actions.

9.2 REVIEW AND VALIDATION OF DATA

As a general rule, all data or information must be checked before it is released to the public or used for making decisions. As with any QA/QC effort, this check should not be done by the same person who generated the data, except when it can be demonstrated that an effective review and validation process can be carried out.

Data checks can take place at different levels; these are referred to as "Data Verification," "Data Validation," and "Data Usability Assessment." The definitions for these terms are provided below:

Data Verification is a process of evaluating the completeness, correctness, and conformance or contractual compliance of a data set against the method standard, SOP, or contract requirements documented in the project QAPP. Data verification should be performed internally by the analytical group or fixed laboratory generating the data. Additionally, data can be checked by an entity external to the analytical group or fixed laboratory. Data verification may result in accepted, qualified, or rejected data.

Data Validation is an analyte- and sample-specific process that extends the qualification of data beyond method, procedural, or contractual compliance (i.e., data verification) to determine the analytical quality of a specific data set. Data validation criteria are based on the measurement performance criteria documented in the project QAPP. Data validation must be performed by an organization independent of the group that generates the data. Data validation results in accepted, qualified or rejected data.

Data Usability Assessment is the process of evaluating validated data to determine if it can be used for the purpose of the project, (i.e., to answer the environmental question or to make the environmental decisions that must be made). Data usability includes the following sequence of evaluations:

 i. *Individual data sets are evaluated to identify the measurement performance/usability issues/problems affecting the ultimate achievement of project quality objectives.*
 ii. *An overall evaluation of all data generated for the project is performed.*

iii. *The project-specific measurement performance criteria and data validation criteria documented in the QAPP are evaluated to determine if they were appropriate for meeting project quality objectives.*

DES expects that in most cases, reviews that can be classified as "Data Usability Assessments" will be sufficient. In some cases however, more formal data verification and validation may be necessary. These more rigorous reviews are more desirable when:

a) A funding agency requires it;

b) There are serious public health and/or environmental impacts;

c) A matter is under litigation, enforcement or a court-ordered schedule, and therefore may be highly scrutinized;

d) A program is being implemented for the first time; or

e) The program has a research aspect.

When the program manager finds that formal data verification and/or validation is necessary, relevant USEPA guidance should be followed.

For the more ordinary forms of data review, at a minimum supervisors should review the information. This is the most basic level of review, and is intended to cover the simplest issues.

This review should cover:

a) Checking consistency and range issues. For instance, a pH of 0.5 in a fresh water sample should be flagged at this point. Also, the result in question should be checked for consistency with past results at this location or, as appropriate, with similar locations.

b) Checking the completeness and appropriateness of the sampling and testing. Were the right locations/samples tested for the right parameters?

c) Checking that correct methods were used.

d) Checking for transcription errors.

e) Checking that the work was done in accordance with the plan, or if changes were necessary, that the changes were adequately documented.

If there is any doubt as to the validity of a certain data point, the first step is to re-sample and/or re-test.

Beyond issues that can be resolved by re-sampling, many factors can cause a data point or set to be invalid. The art and science of error analysis cannot be fully addressed in a document of this size, but if there are issues with a data point or a data set, the program manager should work with the QA Manager and Team and with his/her own staff to resolve the issue. This is a primary function of the QA Manager and Team. Blame and finger-pointing are to be avoided. The goals are to determine how, or indeed if, this particular data is incorrect; to obtain correct data; to record the decision, and ultimately, to ensure that the issue does not recur.

9.3 QUALITY MANAGEMENT SYSTEM REVIEWS

On January 31 of each year, the DES QA Manager and QA Team will coordinate an annual review of the DES quality management system to evaluate its continuing suitability and effectiveness, and to introduce any necessary changes or improvements at the system and program operational levels. This review will be comprised of the results of the internal self-assessments (as described in Sections 9.1 and 9.2) and formal audits conducted by the QA Team and other qualified staff.

In addition to the program reviews/self-assessments, DES will carry out a program of formal audits of a sampling of DES programs to assess conformance to each element of the quality management system and to individual QAPPs (See Section 8.2), SOPs, Department rules, or other Department policies or requirements. The number and frequency of these audits will be determined and documented by the QA Manager and team. The QA Team and/or other qualified individuals who are independent of the area being audited will conduct the audits. The audits are done in a systematic manner, using objective evidence to make findings regarding non-conformance to requirements and the need for any corrective action. For consistency, the audits will follow guidance in this QMP (Chapters 8 and 9) and will be conducted using the most updated version of an approved DES quality management system audit checklist. An audit checklist is included with this QMP in the Implementation Guidance in Appendix H. After the audit, program managers will receive an audit report, outlining non-conformances, corrective actions needed, and recommendations intended to provide guidance for process improvements. Proposed corrective actions are evaluated and tracked, and the effective implementation of corrective actions is verified before the audit is closed.

Based upon the results of program reviews/self-assessments and any formal audits conducted by the QA Team, the QA Manager and Team will prepare a Quality Assurance Status Report for the DES Senior Leadership Team covering the activities of the previous year. Detailed information on the extent of the quality management system review and the contents of the Quality Assurance Status Report is presented in Chapter 10.

The DES QA Manager will provide a briefing to the DES Senior Leadership Team and identify any quality areas requiring improvement. The Commissioner and Assistant Commissioner have final review and approval authority for the report. The report will be maintained on file with the QA Manager and will be available to USEPA upon request. The review shall take account of reports from managerial and supervisory personnel, the outcome of recent internal reviews, assessments by external bodies, any change in the volume and type of work undertaken, feedback from the public, corrective actions, and other relevant factors. Each DES Division may have a procedure for review at the Division level (in addition to the required review by the DES QA Manager) and shall maintain records of review findings and actions.

9.4 EMPLOYEE PERFORMANCE APPRAISALS

Employee performance appraisals are performed following guidance provided by the New Hampshire Code of Administrative Rules of the Division of Personnel, Chapters Per 100 through 1500 and the DES Human Resources Unit of the Office of the Commissioner. The results of these 6-month probationary and annual performance appraisals are documented on Performance Summary forms and placed in the personnel files within the Human Resources Unit (Chapter 4).

9.5   DEFICIENCIES AND NON-CONFORMANCES

Significant deficiencies and non-conformances to QAPPs, SOPs, or Department requirements observed outside of the self-assessment or formal audit processes are reported by staff to the project or program manager, as appropriate. These managers shall ensure that the deficiency or non-conformance is recorded, and shall forward written communications to the appropriate program managerial and project/program-level quality assurance staff.

9.6   CORRECTIVE ACTIONS

Each DES program shall implement procedures to be followed in determining when departures from documented policies, procedures, and quality control have occurred, and to correct the problems that led to the departure. Non-conformances and corrective actions may be identified through program reviews/self-assessment or formal audits (See 9.1). At the minimum, programs must document procedures regarding:

a. The individual(s) responsible for assessing each quality assurance/control procedure;

b. How staff should treat data or reports affected by unacceptable quality control;

c. Within a program, who has authority to suspend or stop work upon detection and identification of an immediate adverse condition affecting quality or health and safety;

d. How corrective actions are to be documented; and

e. Procedures for program review and implementation of corrective action documents.

When deficiencies or non-conformances have been identified, program managers determine and document the following:

a. The nature and scope of the problem;

b. Where possible, the root cause(s) of the problem;

c. The programmatic impact;

d. Required corrective action(s);

e. The individual(s) responsible for initiating and/or recommending corrective actions;

f. Action(s) needed to prevent recurrence;

g. The time frame for corrective actions to be implemented/completed; and

h. The method of assessing and verifying the effectiveness of the corrective action;

The corrective actions should be taken as quickly as possible, but all corrective actions shall be recorded. The program manager shall ensure that these actions are completed within the agreed time frame.

CHAPTER 10 CONTINUOUS IMPROVEMENT

The final part of the quality management cycle is assuring that the actions taken to assess and correct deficiencies in the system are continuously fed back in to the planning process to change and improve the system and its outputs. Continuous process improvement is a core practice at DES and the regular annual assessment process outlined below represents the minimum necessary to allow such continuous improvement to occur.

As noted previously (See Chapters 8 and 9), the QA Manager will evaluate the results of the annual reviews/self-assessments and formal audits of each program's quality system, and especially the causes for deficiencies and corrective actions taken. As described in Chapter 9, it will be necessary to phase in any quality system review procedures by initially focusing its efforts on a limited number (to be decided and documented at a later date) of environmental programs and activities.

With assistance from the QA Team, the QA Manager will then prepare an Annual Quality Assurance Status Report for the DES Senior Leadership Team. This annual Quality Assurance Status Report forms the main vehicle for communicating issues to DES management. Overall, roles and responsibilities for continuous quality improvement break down as follows:

a) Program staff report problems/issues to their supervisors, who report to the program managers. All relevant issues must be addressed. Problems with more immediate solutions should be resolved in an appropriate and timely fashion. All problems and corrective actions must be documented, and the process reviewed at the time of the annual internal review;

b) Program managers review and assess their programs annually, and report, in writing, to the QA Manager. The causes of the noted problems and deficiencies must be identified and corrective actions either recommended or, if they have occurred already, documented;

c) The QA Team and other qualified staff conduct formal program audits on a sampling of DES programs to assess the functioning of the DES quality system;

d) The QA Manager summarizes the reports from the program managers, as well as the results of the program audits, and reports, to the DES Senior Leadership Team, the department-wide findings through the written Quality Assurance Status Report. This report must include recommendations to address outstanding deficiencies. Issues should be prioritized for the Senior Leadership Team's consideration;

e) The DES Senior Leadership Team reviews the annual Quality Assurance Status Report and authorizes changes as they find necessary; and

f) The QA Manager tracks the progress of the program managers in implementing the changes authorized by the Senior Leadership Team, as well as providing assistance where necessary. Changes made are documented in the next year's Quality Assurance Status Report.

It is expected that USEPA, as part of their responsibility to conduct periodic evaluations of the programs it funds, will review the quality systems for many DES programs. The results of USEPA's reviews will be communicated to the DES QA Manager, and ultimately, to the affected programs. The

QA Manager will communicate the results to the affected program managers, who will implement appropriate recommended changes with the QA Manager's assistance. These changes must be reported in the program manager's annual reports referenced in item 2, above.

Program managers and staff must maintain communication with the suppliers and users of their data, both to ensure maximum usability and to identify problems as quickly as possible. Records should be kept of these communications.

The overall goal at all steps of this continuous improvement process is to anticipate and prevent problems from arising wherever possible, and otherwise identify and correct them as quickly as possible.

The QMP will be reviewed annually to ensure that all information contained within it is relevant and up-to-date. Any necessary QMP revisions will be made, and the revised document will be submitted to USEPA. Five years from the date of approval of this QMP, the QA Manager and Team will undertake a complete review of the document and submit a revised QMP to USEPA for approval.

Each environmental program at DES will have a copy of the approved QMP on file. The approved QMP will also be posted on the DES Intranet for ease of access by program managers and others. Program-specific quality documents will also be posted on the DES intranet for staff use. Implementation of the quality assurance system will be incorporated into the appropriate Performance Partnership Agreement and Comprehensive Action and Assessment Planning documents for each environmental program.

APPENDICES

APPENDIX A
DES ORGANIZATIONAL CHARTS
(As of 10/31/03)

N.H. Department of Environmental Services

Michael P. Nolin
Commissioner

Michael J. Walls
Assist. Commissioner

Robert C. Scott
Air Resources Division
Director

Harry T. Stewart
Water Division Director

Frederick McGarry
Acting, Waste Management
Division Director
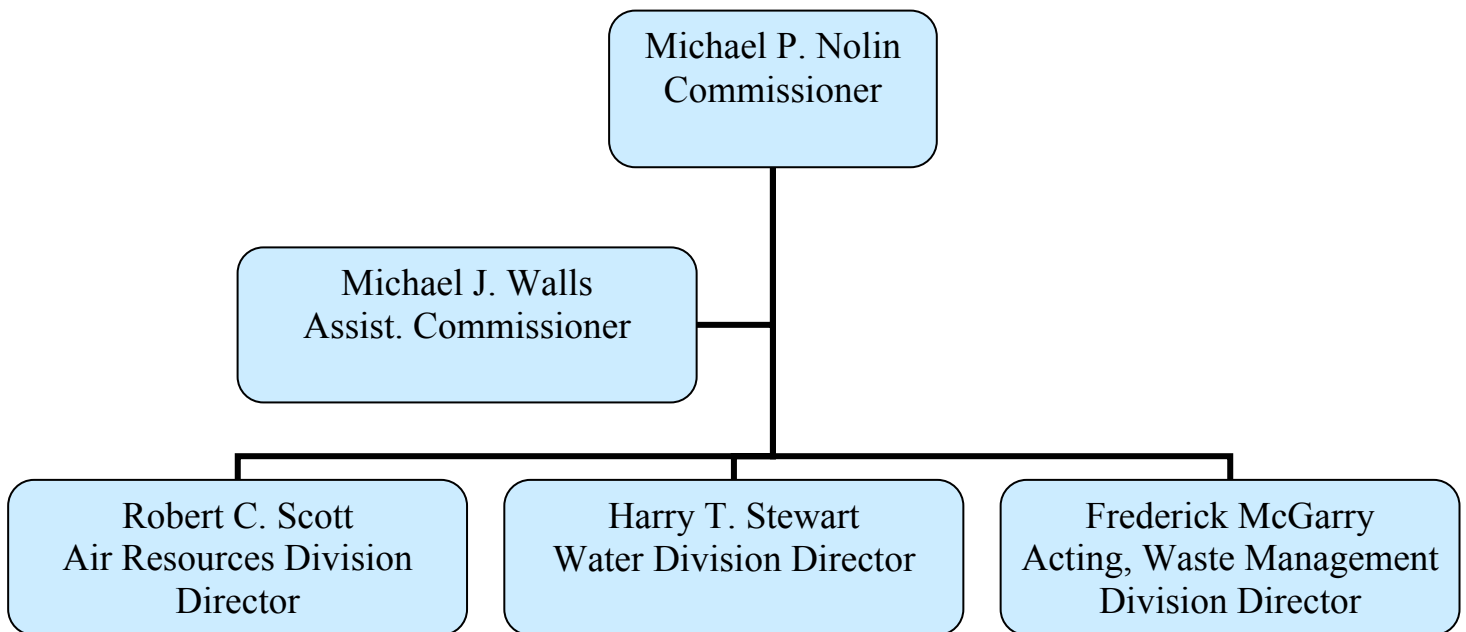
N.H. Department of Environmental Services
Office of the Commissioner

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                    │    Michael P. Nolin     │
                    │      Commissioner       │
                    └─────────────────────────┘
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                    ┌─────────────────────────┐
                    │    Michael J. Walls     │
                    │   Asst. Commissioner    │
                    └─────────────────────────┘

┌─────────────────────────┐         ┌─────────────────────────┐
│    Patricia Bickford     │         │    Vincent Perelli       │
│   Laboratory Services    │         │       Planning           │
└─────────────────────────┘         └─────────────────────────┘

┌─────────────────────────┐         ┌─────────────────────────┐
│      Fran DeCinto        │         │     Gretchen Rule        │
│   Human Resources        │         │        Legal             │
└─────────────────────────┘         └─────────────────────────┘

┌─────────────────────────┐         ┌─────────────────────────┐
│     Timothy Drew         │         │     David Wunsch         │
│ Public Information and   │         │   Geological Survey      │
│      Permitting          │         └─────────────────────────┘
└─────────────────────────┘

┌─────────────────────────┐
│ Mary Ellen Emmerling     │
│ Administrative Services  │
└─────────────────────────┘
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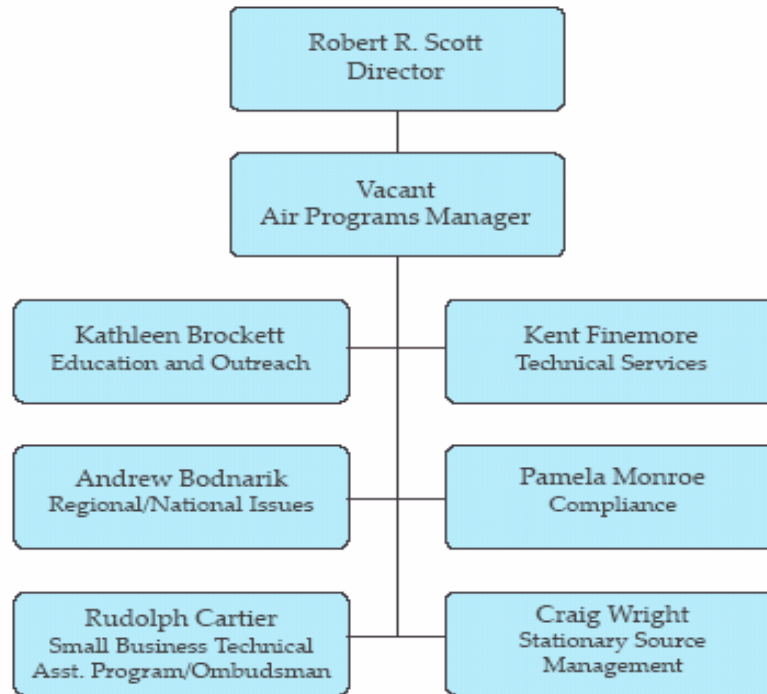
N.H. Department of Environmental Services
Air Resources Division

Robert R. Scott
Director

Vacant
Air Programs Manager

Kathleen Brockett
Education and Outreach

Kent Finemore
Technical Services

Andrew Bodnarik
Regional/National Issues

Pamela Monroe
Compliance

Rudolph Cartier
Small Business Technical
Asst. Program/Ombudsman

Craig Wright
Stationary Source
Management

N.H. Department of Environmental Services
Water Division

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                    Harry T. Stewart
                        Director

                    Russell Nylander
                     Chief Engineer

   John Bush                        James Gallagher
Wastewater Engineering                   Dam

   Paul Currier                      Randolph Monti
Watershed Management          Winnipesaukee River Basin

  Rene Pelletier
Resource Management
    Programs

  Collis Adams                       William Evans
    Wetlands                           Subsurface

  Anthony Giunta                      Ridge Mauck
Water Supply Engineering      Water Quality Engineering
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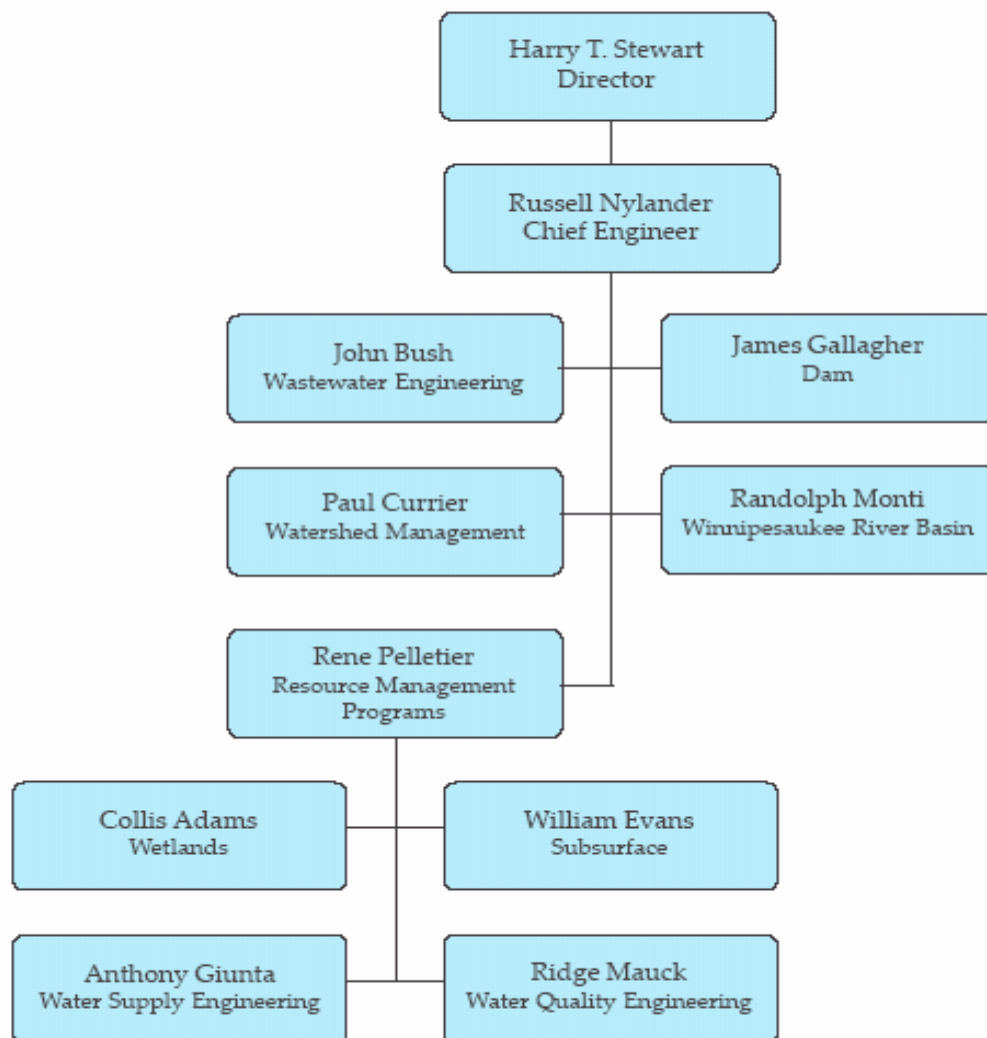
N.H. Department of Environmental Services
Waste Management Division

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                    ┌─────────────────────┐
                    │       Vacant        │
                    │  Waste Management   │
                    │  Division Director  │
                    └─────────────────────┘
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Vacant
Waste Management Division Director

Frederick McGarry
Site Remediation Programs

Michael Sills
Chief Engineer

Kenneth Marschner
Waste Management Programs

Carl Baxter
Hazardous Waste Remediation

John Duclos
Hazardous Waste Compliance

George Lombardo
Oil Remediation and Compliance

Richard Reed
Solid Waste Management

Carl Woodbury
Special Investigations

Sharon Yergeau
Waste Prevention and Technical Information

APPENDIX B – DETAILED DES PROGRAM DESCRIPTIONS

AIR RESOURCES DIVISION

New Hampshire's Air Quality Program is a blueprint for the State's efforts to achieve and maintain air quality that is protective of public health and our natural environment. The New Hampshire Department of Environmental Services, Air Resources Division, with guidance from the New Hampshire Air Resources Council, is committed to promoting cost-effective, sensible strategies and control measures to address today's complex and inter-related air quality issues. These issues include, but are not limited to, ground level ozone, particulate matter, regional haze (visibility), mercury emissions, increasing concentrations of greenhouse gases, acid deposition, and air toxics. In many cases, New Hampshire's direct impact is limited since many problems that the state faces can only be solved on a regional or national basis. Attainment of the ozone standard in New Hampshire, for example, cannot be accomplished independently of other states because violations in New Hampshire are principally the result of atmospheric transport from upwind states.

Given the complexity of and inter-relationships between the air quality issues facing New Hampshire, the goals, objectives, and components of New Hampshire's Air Quality Program are based on the following overall considerations. These considerations are not necessarily ordered, but rather viewed collectively:

- Pollution prevention approaches, including energy efficiency/conservation programs, are preferable to control technology approaches whenever feasible and cost-effective. Such approaches foster a sense of shared responsibility between New Hampshire's businesses, industries and citizens. Front-end prevention strategies eliminate emissions of harmful pollutants to the air, rather than just diminish them or shift the environmental impact to another media such as water or land. Pollution prevention and energy efficiency programs provide opportunities to incorporate policies and measures that optimize multiple public health and environmental benefits.
- Actions should be supported by the most recent scientific and health effects data available, while at the same time recognizing that new information will emerge in the future. Many ongoing state, regional and national research efforts will provide better scientific data and improved understanding of ways to achieve multiple health and environmental benefits at lower cost.
- Public education and outreach activities should be emphasized because they transcend all programs and because the pollution contributions of individual citizen's activities represent an increasing share of air pollution emissions.
- Alternative approaches to the "command and control" approach to regulation are needed to face today's issues and to develop solutions that provide better environmental and public health outcomes faster and more cost-effectively. Planning and regulatory efforts must focus on the development and implementation of programs that achieve maximum reductions in emissions of pollutants, that pose the greatest risk to public health and the environment, as quickly as possible, and as cost-effectively as possible.

Technical Services Bureau

This bureau serves as technical support to the Division and is mainly responsible for operating and maintaining the State's air quality monitoring sites, operation of the State's Ozone Information Line and website, and completing and analyzing both the local and long-range air dispersion modeling analyses. ARD's Global Climate Change and Mobile Source Programs are also housed in this bureau. In the air quality planning role the Technical Services Bureau analyzes, compiles, and submits federally required State Implementation Plans and associated Rate of Progress plans to ensure that national Ambient Air Quality Standards are met. The Technical Services Bureau is divided into four units, the Atmospheric

Analysis Unit, the Mobile Sources Unit, the Ambient Air Monitoring Unit, and the Global Climate Change Unit.

Air Monitoring

The Ambient Air Monitoring Unit is responsible for operation and maintenance of New Hampshire's ambient air monitoring network. New Hampshire operates several remote facilities around the State, at which DES monitors for criteria pollutants as prescribed by the U.S. Environmental Protection Agency, including sulfur dioxide, ozone, nitrogen oxides, particulate matter, volatile organic compounds, and mercury. These sites collect data to determine both air quality status and to establish trends and potential need for additional regulatory changes. This data is transmitted into a federal database for both local and national use.

Atmospheric Analysis

The Atmospheric Analysis Unit is responsible for the preparation and technical support for comprehensive revisions to New Hampshire's State Implementation Plan as required by the federal Clean Air Act, complex regional atmospheric analysis (including photochemical modeling and assessment of regional transport of air pollution), dispersion modeling associated with stationary source permit modeling, inventory preparation assistance, criteria pollutant re-designation, and implementation-phase technical support for new National Ambient Air Quality Standards.

Mobile Source Planning

The Mobile Sources Unit is responsible for the preparation and maintenance of mobile source (e.g., cars, trucks) emissions inventories, issues related to new vehicle and fuel standards, state level vehicle emissions and inspection programs, transportation conformity, technical and policy support for studies related to fuels, fuel components (i.e., MTBE), vehicles, and mobile equipment, and mobile and area source inventory compilation.

Global Climate Change

The Global Climate Change Unit is responsible for the preparation of plans relative to reducing emissions of greenhouse gases and energy efficiency, planning and outreach activities associated with global warming and climate change, and technical support for policy and program initiatives at the local, state, and federal levels.

Stationary Source Management Bureau

The Stationary Source Management Bureau (SSMB) is responsible for permitting, planning and the overall management of stationary sources of air pollution. The SSMB consists primarily of three sections: Permitting, Planning and Air Toxics Section. The Permitting Sections ensure that new and existing sources of air pollution can comply with a wide range of state and federal air pollution regulations. The Planning section oversees rulemaking for the Division and maintains the Division's Stationary Source State Implementation Plan (SIP). The Air Toxics Section oversees the state Air Toxics Program and the federal Hazardous Air Pollutants Program.

Permitting Sections

Title V Permit Program

The Title V Permit Program requires that major sources of air pollution obtain a Title V Operating Permit. In 1995, DES adopted wide-sweeping changes to its existing operating permit program in order to comply

with federally mandated Clean Air Act (CAA) requirements.   Currently, there are 62 sources in the state that are subject to this program. DES anticipates that the number of sources subject to Title V will increase to approximately 75 over the next couple of years.   A Title V Permit is a complex, comprehensive air permit that identifies all applicable requirements that a stationary source must comply with. To date, of the 62 subject sources, 37 Title V Permits have been issued, 2 are in the public review stage and 7 others have been drafted.

State Operating Permit Program

The State Operating Permit Program issues operating permits to state-only sources of air pollution under the authority of RSA 125-C. Approximately 390 sources in NH are subject to this program. This section also issues construction permits to new sources or for modifications at existing sources. The permit review process entails a technical engineering review of permit applications which includes a determination of air emissions, a review of applicable regulations, the preparation of a draft permit and public notice and when requested a public hearing.

New Source Review Program

This newly created section oversees the federal New Source Review (NSR) Permit Program. The NSR program consists of two major federal construction permit programs, namely, Prevention of Significant Deterioration (PSD) and Non-attainment review.   PSD and Non-attainment are complex and comprehensive permit review programs. A PSD and/or Non-attainment review involves the construction of a new major source or a major modification to an existing major source of air pollution. Due to the complexity of these programs, a single permit review will involve multiple staff and may take up to one year to complete. At the present time, DES has a fully approved Non-attainment review permit program, while we are only partially delegated the PSD program. DES is in the process of seeking full delegation of authority for the PSD program from EPA. It is anticipated that DES will gain this authority within the next 2 months

Planning Section

The SSMB Planning Section oversees the administrative rule making process for the Division.   This section is also responsible for overseeing and maintaining the Stationary Source portion of the SIP. The SIP is state's plan for achieving and maintaining compliance with federal air quality standards.   In addition, the section develops CAA Section 111(d) State Plans in response to federally developed Emission Guidelines.

Air Toxics Section

State Air Toxics Program

This program is designed to prevent, control, abate and limit the emissions of toxic air pollutants into the ambient air pursuant to RSA 125-I. The State Air Toxics Program sets Ambient Air Limits (AALs) or air quality standards for approximately 750 compounds. Sources that emit any of these regulated compounds are required to demonstrate compliance with the AALs. The AALs are compound specific and are designed to be protective of public health and welfare. The adoption of these standards started a 3-year compliance phase-in period for existing stationary sources, while new sources are required to comply with these standards upon start-up. The SSMB is responsible for implementing this program including determining source applicability, making policy decisions and establishing appropriate permit conditions.

MACT Program

In accordance with CAA requirements, EPA established the federal Maximum Achievable Control Technology (MACT) program in 1990. Under this program, EPA will establish emission and work practice standards for 174 source categories of hazardous air pollutants (HAPs). These HAPs include 189 chemical compounds, including known and potential carcinogens. Upon establishment of a particular MACT standard it is the responsibility of the SSMB to implement these standards, including determining applicable sources, identification of compliance options and establishing appropriate permit conditions for subject sources

Air Toxics Monitoring

DES operates three air toxics monitoring sites in the state. Currently, monitoring is conducted in Manchester, Portsmouth and Claremont. These sites monitor the ambient air for about 50 chemical compounds. DES recently applied for federal grant monies to support and expand this program.

Compliance Bureau

The Compliance Bureau is responsible for administering the State's compliance assistance and enforcement activities relative to state and federal air pollution control laws and regulations. The Compliance Bureau is responsible for compliance determinations, facility inspections, complaint investigations, compliance stack testing, Relative Accuracy Testing Audits (RATAs), the Stage I/Stage II Gasoline Vapor Recovery Program, emergency response, emissions inventory, compliance assistance and enforcement. The Compliance Bureau is divided into five sections: Compliance Testing, Compliance Assessment, Emissions Inventory, Enforcement, and Emergency Response.

Compliance Testing Section

This section is primarily responsible for coordinating and observing all compliance emissions stack tests conducted in the State. These duties include performing engineering assessments of all proposed pretest protocols to ensure that testing and monitoring methods conform to EPA requirements. The Compliance Testing Section staff witness all compliance tests and evaluate the results of these tests for compliance with applicable state and federal air pollution control laws and regulations. For those facilities that are required to install continuous emissions monitoring systems, the Compliance Testing Section also observes and evaluates Relative Accuracy Testing Audits (RATAs) to ensure data quality. Lastly, the Compliance Testing Section is responsible for administering the Gasoline Vapor Recovery Program and witnessing related compliance tests.

Compliance Assessment Section

This section conducts inspections of stationary sources of air pollution and provides compliance assistance to the regulated community. In addition, the Compliance Assessment Section is responsible for complaint investigations and determining appropriate follow-up. Lastly, the Compliance Assessment Section administers the Asbestos Program which regulates asbestos abatement activities.

Emissions Inventory Section

This section maintains an accurate and extensive air pollution emissions inventory of New Hampshire sources. This data is used to determine compliance with state and federal regulations, establish state and national emissions trends and to help in evaluating the effectiveness of the State's air quality programs.

Enforcement Section

The Enforcement Section is responsible for developing and implementing policies and procedures for determining the appropriate compliance or enforcement response to violations of air pollution control regulations, documenting reasons for the response, coordinating with other programs, and determining the appropriateness of a fine or penalty.

The Emergency Response and Risk Management Plan Section

The Emergency Response and Risk Management Plan Section is responsible for coordinating ARD's response to incidents involving emergency releases of chemicals into the ambient air to ensure the protection of public health. In addition, the Emergency Response Section is responsible for tracking risk management plans for facilities subject to Section 112(r) of the Clean Air Act and for auditing those facilities for compliance with the risk management plan.

Administration

Within the Director's Office the following programs exist:

Public Education and Outreach

This unit is responsible for various education and outreach initiative and planning related activities. Activities include: developing ARD's Clean Air Strategy, coordinating ARD's Performance Partnership Agreement, developing various ARD fact sheets and other educational materials, developing various outreach initiatives, and developing/coordinating various educational/outreach activities including training workshops, visits to schools, speaking engagements, etc.

Regional/National Issues

The Regional and National Issues Unit of the ARD's Director's office is responsible for providing technical and policy recommendations to the Director and Commissioner on a variety of regional and national air quality issues including: acid rain, fine particulate matter, ground level ozone, interstate transport of air pollution, regional haze, energy deregulation, energy efficiency, air toxics (including methods to minimize deposition of mercury), and emissions trading and banking. These regional/national duties include participation on regional, national, and international policy and technical committees such as: the NESCAUM Stationary Source and Permits Committee, the OTC Stationary and Area Source Committee, the STAPPA/ALAPCO Permitting Committee, the STAPPA/ALAPCO Energy Committee, the New England Governor's/Eastern Canadian Premiers Utility Boiler Workgroup, and the NHPUC Energy Efficiency Working Group. The Regional and National Issues Unit manages and coordinates all DES efforts on regional, national, and international air quality policy and technical matters.

Emission Reduction Trading Program

The Clean Air Act Amendments of 1990 recognized the merit of using market-based approaches to help achieve clean air goals. For example, the Amendments introduced a market-based allowance trading system for controlling sulfur dioxide emissions that contribute to acid rain. Reductions are achieved through an "emissions budget" or "cap" trading system that places a "cap" on emissions for a specific category of sources, power plants. In contrast, an open market system allows, but does not require, any emissions source or facility, including mobile sources, to participate and does not set a limit on the number of emissions reductions credits generated or sold. DES has both types of trading programs, which are managed by a single Program Manager. The programs achieve reductions in emissions that contribute to ground level ozone.

2. The <u>Small Business Ombudsman</u> acts as the small business community's representative in matters that affect it under the CAAA. Other responsibilities include conducting studies to evaluate the effects of the CAAA on state and local economies, and on small businesses in general. The Ombudsman also provides comments and recommendations to the U.S. Environmental Protection Agency and the N.H. Department of Environmental Services Air Resources Division regarding the development and implementation of regulations that impact small businesses.

3. The <u>Small Business Assistance Program</u> provides the following services alone and in partnership with other assistance programs:
    o Inform businesses of all requirements in the CAAA that apply to them, and the dates these requirements will apply.
    o Help small businesses deal with specific technical, administrative and compliance problems.
    o Disseminate up-to-date information about the CAAA to the small business community, including easy-to-understand public information materials.
    o Provide pollution prevention information and assistance to reduce the amount of air emissions and other wastes created by a small business.
    o Provide on-site evaluations of company work practices, monitoring procedures and record keeping to determine effectiveness in complying with applicable clean air requirements.

4. The <u>Compliance Advisory Panel</u> oversees the small business assistance program and the ombudsman, making recommendations for improvements and determining the overall effectiveness of the SBTAP. The panel consists of seven members: four small business owners or representatives selected by the legislature; two members of the "general public" selected by the Governor; and one member selected by the Commissioner of DES.

WASTE MANAGEMENT DIVISION

The Programs within the Waste Management Division are organized into two major branches. The Waste Management Programs deal with the current and future issues associated with solid and hazardous waste outreach, compliance, enforcement, grants, permitting and reporting. The Site Remediation Programs focus on correcting past mistakes by following standards of various programs to clean up property contaminated by petroleum and other waste, using such tools as soil and groundwater treatment, enforcement, permits, grants and other restoration incentives.

Waste Management Programs Branch – Overview

Solid waste programs encompass the many stages of solid waste management and regulation, from planning to facility permitting and construction oversight, to compliance and enforcement and finally, to facility closure and post-closure monitoring. Hazardous waste programs have many similar aspects, ranging from technical assistance for pollution prevention, tracking the generation and shipping of hazardous waste, permitting and inspecting facilities, compliance assistance and conducting enforcement procedures when necessary. In addition, there are special investigative, grant, technical assistance, training and outreach components of both programs.

Site Remediation Program Branch – Overview

The hazardous waste remediation program oversees the cleanup of sites contaminated with hazardous waste. The methodology used to remediate the sites is dependent on whether the site is a federal (Superfund or Department of Defense) sites or a privately owned site, also known as a "state site". Included in state sites are the RCRA Subtitle C Corrective Action sites and the developing brownfields program, where industrial sites are voluntarily cleaned up by landowners who are offered reduced liability provisions for their actions.

The oil remediation and compliance program is responsible for facility compliance involving underground storage tanks (USTs) and above-ground storage tanks (ASTs), initial response to a wide range of oil spills and releases, and preparation for response to large coastal oil spills. The program is also responsible for the long-term remediation of petroleum-contaminated sites, including site project management and the distribution of petroleum reimbursement (i.e. insurance) funds to facility owners for the cleanup of petroleum contaminated sites.

Waste Management Programs

Hazardous Waste Compliance Section

The Hazardous Waste Compliance Section (HWCS) is responsible, in part, for administering the State's hazardous waste management program. The HWCS inspects business entities for compliance with hazardous waste identification, storage, permitting, transportation, record keeping, and reporting. In addition, there are also specific standards for recyclable materials, such as used oil, which are subject to inspections. The HWCS is divided into four subsections: RCRA Compliance, Authorization, Permitting, and Used Oil. The staff in all of these subsections are frequently called upon to provide assistance to the regulated community through regulatory interpretations, telephone assistance, and speaking engagements.

Hazardous Waste Program

- The RCRA Compliance Subsection conducts inspections of hazardous waste generators and provides technical assistance to the regulated community. A Hazardous Waste Assistance Hotline is maintained by the HWCS for the regulated community to contact the HWCS to ask questions concerning the New Hampshire Hazardous Waste Rules and compliance issues which affect hazardous waste management programs.

  The Authorization Subsection coordinates hazardous waste rulemaking as a result of federal authorization/state requirements. The function of the subsection is to plan and schedule program revision activities, coordinate the development of state regulations to keep pace with changes in the federal program and changing state needs, and coordinate the development of the state's application to maintain federal authorization of NH's hazardous waste program.

  The Permitting Subsection reviews and processes applications for all hazardous waste/RCRA permits. These permits include Standard Treatment, Storage, or Disposal Facility (TSDF) Permits, Transfer Facility Permits, Limited Permits (which allow generators to treat hazardous wastewater) and Emergency Permits.

- *Used Oil Program* - The Used Oil Subsection's goal is to encourage the recycling and safe management of used oil in New Hampshire. It has two primary objectives: to award grants to political subdivisions of the State for the purpose of establishing or improving used oil collection centers for the "Do-It-Yourselfer" (DIY); and to oversee the compliance and enforcement of the regulations governing the generations, transportation, collection and recycling of used oil.

Special Investigation Section

- *Emergency Response Operations Program* - The Special Investigations Section (SIS) maintains a response capability for non-petroleum hazardous materials emergencies on a 24 hour/day, 7 days/week bases. SIS personnel provide technical assistance to the local on-scene commander, environmental monitoring, sampling of various media and contaminant identification
- *Non-Notifier Program* - SIS has the responsibility of identifying non-notifiers for the RCRA program. SIS identifies hazardous waste generators who have failed to notify DES of their waste

activities. SIS will provide information and assistance to the non-notifier so as to allow them to come into compliance.

- *Hazardous Waste Transporter Program* - SIS is responsible for registering all hazardous waste transporters in the State of New Hampshire. The process includes reviewing registration applications, conducting background investigations and issuing registrations. SIS personnel inspect transport vehicles on the State's roadways, often in conjunction with NH State Police, as well as the permanent facilities of companies located in New Hampshire.
- *Complaint Investigations Program* - SIS investigates complaints regarding the mismanagement of solid and hazardous wastes. Investigations are conducted in the field and may include sampling of various containers and media (often in hazardous environments), interviews of potential witnesses and responsible parties, as well as inspections and documentation.

Solid Waste Management Bureau

The Solid Waste Management Bureau is comprised of three programs: Compliance, Grants Management, and Permitting. While each of the programs has specific responsibilities, all work in a cooperative interface to be certain that: 1) general compliance issues are effectively addressed; 2) design plans and specifications are thoroughly reviewed prior to construction; 3) the performance of completed projects is tracked and analyzed for program improvement; 4) the citizens of New Hampshire are reasonably protected from the need to assume facility closure and post-closure costs; 5) the risks associated with exposed asbestos are properly dealt with; and, 6) grant money for eligible projects is paid in a timely way. Primary impacts affecting the programs center on the changing priorities of local governments who make decisions relating to what issues that will be brought before the voters for approval; and the fiscal concerns of the residents of communities when asked to approve significant financial obligations to address matters such as landfill closures.

- *Solid Waste Compliance Program* - The Compliance Program deals with general compliance and landfill closure, financial assurance and remediation and monitoring of asbestos contaminated properties. The efforts of the program are directed at tracking general operations of the state's permitted solid waste facilities and a focused effort to close unlined landfills.
- *Grants Management Program* - The Grants Management Program oversees landfill closure grants to ensure that timely facility closures are not delayed by lack of funding. The focus is to operate a streamlined program that helps communities to meet their environmental obligations.
- *Permitting & Design Review Program* - The Permitting Program looks at permit application and design review and construction oversight. There is considerable interaction with air and water programs in the permitting and operations determinations for solid waste facilities.

Planning Bureau

- *Planning & Community Assistance Program* - The Planning & Community Assistance Program is responsible for planning and technical assistance for solid waste. Planning activities include the preparation of the State Solid Waste Plan and Annual Legislative Report. Major components of these documents are projections of statewide solid waste capacity needs and the development of strategies for achieving the legislative goal of 40% waste reduction. Of the many outreach activities offered by the section, the Solid Waste Operator Certification is the most comprehensive, with annual certification and a variety of workshops provided throughout the year.
- *Pollution Prevention and Education Program* - The Pollution Prevention & Education Program is charged with the promotion of pollution prevention within New Hampshire's businesses, institutions and municipalities as well as the promotion of the environmentally sound management of household hazardous wastes through technical assistance, education and outreach. These functions are handled respectively within the Section by the New Hampshire Pollution Prevention Program (NHPPP) and the Household Hazardous Waste Program (HHW). Although serving different stakeholders, both

programs encourage source reduction, reuse and recycling as the preferred waste management options.

o   *Pollution Prevention Program* - The NHPPP is non-regulatory and promotes pollution prevention through proactive outreach and technical assistance. The NHPPP relies on outreach in the form of conferences, workshops, educational curricula development, partnerships and technical assistance to achieve its goals. The success of NHPPP outreach efforts is demonstrated by the high level of attendance at NHPPP functions and by the high demand for the NHPPP newsletter, increased requests for P2 presentations at schools and the number of technical information requests the NHPPP receives.

o   *Household Hazardous Waste Program* - The Household Hazardous Waste Program provides municipalities with grant funding for HHW waste collection events and has initiated the promotion of source reduction by consumers and more efficient management of HHW and Universal Wastes by municipalities. A component of the program is research into making more readily available permanent options for safe disposal of household hazardous waste. Statutory and regulatory revisions underway at this point are aimed at making the process of collection more convenient, cost-effective and efficient.

o   *Reporting & Information Management Program* - The Reporting & Information Management Program is responsible for the implementation of all information management functions relative to the Resource Conservation and Recovery Act (RCRA) Subtitle C program. These activities include: maintaining the Resource Conservation and Recovery Information System (RCRIS) database which stores information of regulated activities through direct data entry (NHDES is the only New England state agency maintaining Implementer status); collecting and processing the required biennial report to EPA (Biennial Report System/BRS) according to the time frames specified by EPA HQ; collection and processing of hazardous waste manifests; administration of the hazardous waste fee program; supporting DES's Geographic Information System (GIS); filling Freedom of Information Act requests; tracking declassification requests; and re-engineering information management to meet the changing business needs of the RCRA program.

Site Remediation Programs

Oil Remediation and Compliance Bureau

- *State Petroleum Remediation Program* - The State Petroleum Remediation Program investigates and remediates petroleum spills at sites, which are not covered by the federally regulated Underground Storage Tank (UST) program. These sites consist of heating oil USTs, petroleum Aboveground Storage Tanks (AST) and in-land oil spills not associated with storage facilities (spills from petroleum tanker trucks, etc.). Funding for this program is provided through the Petroleum Reimbursement Funds, the Oil Pollution Control Fund and responsible parties. The sites in the State Petroleum Remediation Program require active project management and Groundwater Management Permit oversight to ensure that sites move from discovery to cleanup and closure in a timely and cost-effective way.

- *Petroleum Reimbursement Funds Program* - The Petroleum Reimbursement Funds (Funds) include three separate funds: Oil Discharge and Disposal Cleanup Fund (ODDCF), Fuel Oil Discharge Cleanup Fund (FODCF), and Motor Oil Discharge Cleanup Fund (MODCF). These Funds are managed by DES for the Oil Fund Disbursement Board, which is authorized to adopt rules and distribute reimbursements to facility owners. These Funds are designed to provide financial responsibility (i.e., insurance) to specific sectors of the petroleum industry. Each Fund is supported by fees on specific types of imported petroleum: motor fuels (ODDCF), heating oils (FODCF) and motor oil (MODCF). ODDCF provides insurance of up to $1,000,000 for regulated motor fuel USTs to address the federal financial responsibility requirements. Other coverage provided by the Funds addresses a need identified by the petroleum industry and DES rather than a mandate for insurance. About $7 million per year is reimbursed to owners to clean up petroleum-contaminated sites.

- *Federal Leaking Underground Storage Tank Program* - The Federal Leaking Underground Storage Tank (LUST) Program managed by DES has the responsibility for the remediation of petroleum-contaminated sites where the release occurred from federally regulated underground storage tanks (USTs). This involves emergency response, project management and Groundwater Management Permit oversight to ensure that sites move through investigation to cleanup and site closure in a timely and cost-effective manner. This program is mostly funded by the Federal LUST Trust Cooperative Agreement with limited additional support from the state Petroleum Reimbursement Funds and the state Oil Pollution Control Fund.
- *Aboveground Storage Tank Program* - The Aboveground Storage Tank (AST) Program has the responsibility for conducting compliance and facility registration activities for regulated ASTs. The program is 100% State funded by the Fuel Oil Discharge Cleanup Fund and the Oil Pollution Control Fund.
- *Underground Storage Tank Program* - The Underground Storage Tank (UST) Program has the responsibility for conducting active compliance and permitting activities for regulated USTs. The program is funded by the federal UST grant with a limited state match from the State Oil Pollution Control Fund. The UST program reviews designs and plans and performs installation inspections for new or modified UST systems. Engineering plans and specifications are reviewed for compliance with the UST rules and on-site inspection of installed systems are conducted prior to backfilling to ensure that the installations are in accordance with the approved plans. The UST section also performs on-site compliance inspections and compliance record reviews and conducts enforcement actions and field inspections.
- *Oil Spill Initial Response Program* - The Initial Spill Response (IR) Program has the responsibility to respond to and perform duties of the state on-scene coordinator at both inland and coastal spills. The program staff coordinates the activities of private owners, abutters, cleanup contractors, consultants and state officials in an effort to contain a spill and commence cleanup of inland spills. For coastal spills, where the U.S. Coast Guard acts as the on-scene coordinator, program staff become a part of the response command team. At least one staff member is on-call for initial response at all times. The program is funded entirely by the Oil Pollution Control Fund.

Hazardous Waste Remediation Bureau

- *State Sites Corrective Action Program* - The State Sites Corrective Action Program combines the technical staff involved with groundwater and hazardous waste corrective action issues, including the RCRA C Corrective Action Program and the Brownfields Program. The work load is divided across multiple program elements including: Brownfields Program implementation, site resolution of small but high volume sites through timely (less than 60 days) reviews, resolution of more complex large sites, and program development.
- *Federal Superfund Program* - The Department of Environmental Services (DES) continues to provide management assistance to EPA to clean up the 18 NPL sites in New Hampshire and undertake site assessments for sites not yet on the NPL (185 CERCLIS sites). DES reviews sites on CERCLIS to see which sites should be handled under full state authority and which sites truly require federal intervention. The VCP/State Sites Corrective Action Program provides key tools in resolving the CERCLIS sites (site owner impetus to undertake remedial action, and clear state/federal guidance to do such). State implementation of the time critical removals pilot helps demonstrate the efficiencies of management and program integration at the state level.

WATER DIVISION

The Water Division (WD) is responsible for all Department functions related to water pollution, water quality, drinking water supplies, wetlands protection, water resources and dam safety. WD personnel review extensive data submitted to DES from operators of public water supplies and holders of National Pollutant Discharge Elimination System (NPDES) permits. WD takes enforcement actions based on

these results, as necessary. Field-testing to address complaints or to confirm results reported by others is conducted as necessary. WD is divided into seven functional units:

Watershed Management Bureau Programs

The Watershed Management Bureau programs link people and water resources through science, planning, and education to achieve clean water goals. In order to protect our state's water resources we must protect the whole watershed. This means protecting aquifers, wetlands, groundwater, marshes, streams and estuaries, plus forests, fields, and other upland areas, because all parts of the watershed are interconnected. The watershed approach for management and planning is a strategy that has as its premise that many water quality and ecosystem problems are best solved at the watershed level rather than at the individual waterbody level. In addition, the watershed approach provides local communities greater involvement in decisions that affect their future. By combining forces and resources, watershed related teams are overcoming old barriers and realizing new opportunities.

Watershed Assistance Program

The NH Department of Environmental Service's (DES) *Watershed Assistance Program (formerly the Nonpoint Source Program)* has been working with local organizations, other programs within DES, and EPA New England, to improve water quality in New Hampshire at the watershed level. We are working with people in their watersheds to identify water resource goals and to develop and implement watershed management plans. The DES Watershed Assistance Program:

- Provides outreach to local watershed management organizations specifically regarding financial assistance available for local initiatives and restoration projects through Section 319 Grants,
- Assists local watershed organizations with land protection and riparian buffer projects,
- Investigates potential nonpoint source water contamination problems and works with the appropriate parties providing technical and sometimes financial assistance for remediation
- Executes contracts with NH regional planning agencies for state-funded regional environmental planning projects and federally funded water quality planning projects,
- Implements the recommendations of the Council on Resources and Development Sprawl Report,
- Writes and distributes Greenworks environmental newspaper columns, to NH daily and weekly newspapers, and assists the Lamprey River Advisory Committee with local outreach and educational efforts

Biomonitoring Program

The Department's Biomonitoring Program assesses the biological health and integrity of aquatic ecosystems throughout the state. The results of these assessments are used to establish reference locations for "least disturbed" conditions in the state, identifying areas that are biologically impaired, and for prioritizing those areas needing management, restoration, or preservation efforts

Clean Lakes/Exotic Species (includes state funded diagnostic feasibility studies)

Exotic Species Program: The DES Exotic Species Program coordinates activities associated with the control and management of exotic aquatic plants; as well as activities associated with the implementation of education programs and volunteer plant monitoring programs.

Pools, Spas, Beaches Inspection Program

The increased popularity of public spas and a growing awareness of diseases associated with swimming areas has prompted DES to take a closer look at the state's public swimming places. Diseases such as amoebic dysentery, leptospiroses, and bacillary dysentery can be spread through contact with

contaminated natural waters, swimming pools, and spas. Pools and spas can also play a role in the transmission of infections of the eye, ear, nose and throat and in the spread of athlete's foot and dermatoses. Because of such public health concerns, the proper construction and maintenance of public swimming facilities is of great importance. The intent of this DES program is to protect public health and safety at public recreational facilities which include swimming pools, wading pools, spas, water slides, scholastic competition pools, and at hotel, motel and condominium pools. No person shall install, operate, or maintain a public bathing facility unless the construction, design, and physical specifications have received prior approval. Private residential polls are exempt from this program. The state currently monitors conditions at more than 1200 bathing facilities.

Rivers Management and Protection

Rivers Management and Protection Program: The New Hampshire Rivers Management and Protection Program was established in 1988 with the passage of RSA 483 to recognize and designate rivers to be protected for their outstanding natural and cultural resources. The program is administered by the New Hampshire Department of Environmental Services (DES).

Instream Flow

Instream flow is one of the key protection measures provided under the Rivers Management and Protection Act (RSA 483). The Act gives the Department of Environmental Services (DES) the authority and responsibility to maintain flow to support instream public uses in rivers that have been designated by the Legislature for special protection under RSA 483. Instream public uses are defined as including navigation, recreation, fishing, conservation, maintenance and enhancement of aquatic life, fish and wildlife habitat, protection of water quality and public

Lakes Management and Protection

The lakes of New Hampshire mean different things to different people, but to all of us, our 800 lakes and great ponds are symbolic of the state's unique natural beauty. Man's presence in and around the waters of the state has grown significantly in this century. Our lakes provide various uses and values which cannot be overlooked. The increased pressure we have placed on our lakes has resulted in the need for an active, multidisciplinary management approach to secure the wise management and preservation of our lakes. Recognizing the impacts of man's activities and the potential financial consequences if the quality of New Hampshire's lakes is allowed to deteriorate, the Legislature established the Lakes Management and Protection Program with the passage of RSA 483-A. The Program includes a Lakes Coordinator, and the Lakes Management Advisory Committee (LMAC) which advises the DES Commissioner and Lakes Coordinator in carrying out the purposes of the statute. The Advisory Committee is made up of 18 members, representing state agencies, municipalities, the conservation community, marine, tourism, real estate and business and industry interests and academia. The numerous projects and products of the Lakes Program encompass the board spectrum of lakes management.

Shellfish

The mission of the NH DES Shellfish Program is to ensure that the state's shellfish are safe for consumption by those who enjoy harvesting these public resources. To this end, the NHDES Shellfish Program strives to:

- Evaluate the sanitary quality of all coastal shellfish growing waters in the state, and ensure that these evaluations are kept current through periodic re-evaluations;
- Identify pollution sources and other factors that render the state's shellfish resources unfit for human consumption;

- Work with local officials, other state agencies, environmental organizations, and members of the public to eliminate pollution sources, especially those that limit opportunities for shellfish harvesting;
- Inform and educate the public about the sanitary quality of the state's shellfish resources, as well as potential health risks associated with shellfish.

Section 401 Water Quality Certificate

When large projects are located in or near surface waters (i.e. river, lake, or wetlands), federal agencies require a Section 401 Water Quality Certificate be issued (401 Certificate) to assure that the State's water quality will not be adversely affected. The 401 Certificate contains specific conditions intended to prevent degradation of surface water quality as a consequence of the project's activities (e.g. soil erosion and sedimentation). The Army Corps of Engineers and the Federal Energy Regulatory Commission are two federal agencies that will not issue a federal permit or license for any activity that would result in a discharge to surface waters until they are assured that the States' water quality will be protected. The 401 Certificate gives that assurance and applies to projects which affect these environments.

Volunteer River Assessment Program (VRAP)

VRAP provides support, training and equipment loans for citizen water quality monitoring of New Hampshire's rivers. VRAP is modeled after the New Hampshire Volunteer Lake Assessment Program (VLAP), a cooperative education and stewardship program among DES, schools and lake associations across the state. Both volunteer assessment programs provide water quality education and opportunities for citizens to play an active role in protecting the beauty and value of our water resources.

Volunteer Lake Assessment Program (VLAP)

The New Hampshire Volunteer Lake Assessment Program (NH VLAP) was initiated in 1985 in response to an expressed desire of lake associations to be involved in lake protection and watershed management. NH VLAP is a cooperative program between lake residents and the New Hampshire Department of Environmental Services (DES). Over 120 lakes participate in NH VLAP. The program allows lake associations the opportunity to play an active role in monitoring and protecting the beauty and value of the lake they live on. By sampling the lake several times each year over a period of years, long-term water quality trends can be discerned, supplementing the environmental monitoring efforts of DES as well. Only through the use of volunteer monitors can such a volume of sampling be accomplished

Smart Growth

"Sprawl" describes a pattern of development characterized by increasing amounts of developed land per person, scattered, low-density development, and the fragmentation and loss of open space. Sprawl and other poor development practices impose significant negative impacts on air and water quality, reduce the quantity and quality of wildlife habitat, and limit recreational opportunities for area residents. Poor land use planning, the rapid and uncontrolled expansion of suburban areas, and the decline of existing town centers are some of the factors leading to sprawl. Smart growth efforts work to prevent sprawl and reduce the environmental and social impacts of poorly managed growth and development. DES has a number of efforts underway to discourage sprawl and support smart growth efforts. For example, DES helped the Regional Planning Commissions (RPCs) inventory over 3,600 important natural and cultural resources across the state. DES is now working with the RPCs to promote better local land use planning to protect these resources. DES's <u>Brownfields program</u> and also help deter sprawl.

Frog Survey Program

The frog issue is a very public concern, and New Hampshire citizens have a strong volunteer attitude. The success of past survey efforts have been due in large part to committed volunteers. Each summer NHDES hosts workshops to provide training to volunteers, introducing them to the data sheets and techniques involved in conducting a successful survey.

The Wastewater Engineering Bureau

The mission of the Wastewater Engineering Bureau is to ensure that the design, construction, and operation of wastewater treatment facilities are in accord with applicable laws and regulations.

- Ensuring that the design and construction of wastewater treatment facilities (WWTF) is in accord with state standards.
- Ensuring that the operation of WWTFs is in accord with the facilities discharge permit by providing compliance inspections, technical assistance, operator training, and operator certification.
- Providing financial assistance in the form of grants and low interest loans for eligible projects.
- Issuing permits to ensure that the WWTF's discharges do not violate the State's surface water quality regulations.
- Ensuring that industrial discharges to municipal wastewater treatment facilities do not adversely impact the operation of the WWTF or cause the facility to violate the State's surface water quality regulations.
- Ensuring that all septage and sludge management activities are permitted and performed in accordance with state standards.

Design Review Section

The Design Review Section has the responsibility of reviewing plans and specifications for all public and private wastewater collection systems and domestic sewage treatment systems. The Section also reviews and issues permits for major new users of municipal treatment plants, assists small communities with wastewater treatment needs and prepares environmental assessments for projects that are funded by the State Revolving Loan Fund. Additional functions of this section include reviewing wastewater planning studies, municipal sewer use ordinances, user charge systems and inter-municipal agreements.

Wastewater Engineering Bureau Pre-Qualification Program

This program requires that any consulting engineering firm intending to compete for engineering contracts of municipal water supply or wastewater projects that are to receive federal or state funding assistance, must be pre-qualified. The intent of the pre-qualification program is to ensure that engineering firms which vie for municipal water or wastewater projects, using federal or state financial assistance, have the experience and capability to satisfactorily complete those contracts.

NPDES Permit Program

Any facility that discharges to a surface water is required to obtain a federal permit, called a National Pollutant Discharge Elimination System (NPDES) permit. As the state has not been delegated this program, EPA issues this permit. Before EPA can issue the permit, however, the Department of Environmental Services (DES) must certify that the limitations and conditions contained in the permit will ensure that the proposed discharge will not violate any state law or regulation. NPDES permits in New Hampshire are primarily issued to municipal and industrial wastewater treatment plants.

NPDES Compliance Program

After the NPDES permit has been issued, DES conducts inspections of these permitted facilities to ensure that they remain in compliance with the conditions and requirements of their permit. These inspections are normally performed on an annual basis and are usually unannounced. In addition to performing the inspections, the compliance group also receive and track the monthly reports submitted by the facilities and, if necessary, initiate enforcement.

Sludge and Septage Programs

Sludge Management

The term "sludge" is used to describe the solid, semisolid and liquid material produced by water and wastewater treatment processes. It includes industrial sludge and sludge mixtures, but does not include domestic septage or sludge disposed at solid waste facilities. The term "biosolids" means any sludge derived from a municipal wastewater treatment facility that meets Department standards for beneficial reuse. DES regulates the processing, transportation, and disposal/reuse of sludge and biosolids to ensure this material is utilized or disposed in an environmentally sound manner. Whenever possible, recycling through the regulated beneficial use of biosolids for land application or composting for nutrient value and soil conditioning, is promoted by DES. These activities utilize a valuable resource that may otherwise be disposed in a solid waste landfill, thereby preserving valuable landfill capacity. There are four different types of permits or certifications required for the proper management of sludge or biosolids: Sludge Quality Certification, Sludge Hauler Permit, Sludge Facility Permit, and Biosolids Site Permit.

Septage Management

The term "septage" is generally used to describe the liquids and solids that are pumped from a septic tank or cesspool. The term also applies to the waste pumped out of holding tanks and from boat toilets and porta-potties. The Department regulates the removal, transportation, and disposal of septage to ensure this material is utilized or disposed in an environmentally sound manner. Whenever possible, recycling through the beneficial use of septage land application is promoted by DES. Disposal of septage at a POTW adds significantly to the generation of sludge, a residual that must also be land applied or disposed. A lagoon is only a temporary holding facility: eventually the accumulated solids must be excavated and properly utilized/disposed. Land application practices utilize nutrients that may otherwise be disposed in a publicly owned wastewater treatment facility (POTW) or lagoon. There are four different types of permits or registrations required for the proper management of septage: Septage Hauler Permit, Septage Holding Tank Registration, Septage Facility Permit, and Septage Site Permit.

Wastewater Operations

Certification, Training, and Technical Assistance

Owning and operating wastewater treatment facilities (WWTF) and collection systems represents a significant lifelong investment for any community. Protecting this investment requires that wastewater treatment plant operators be fully trained and certified to properly do their jobs. DES's Wastewater Operations Section conducts training courses in the spring and fall of each year at the DES Operator Training Center in Franklin, New Hampshire. Certification exams are held in June and December. Technical assistance is provided both in the office and at the WWTF for those problems requiring varied areas of expertise.

Pretreatment Program

The Pretreatment Program was developed to ensure that industrial facilities that discharge to a municipal collection system pre-treat their wastewater. This is to ensure that their discharge will not pose a threat to human health or the environment. To accomplish this, industrial facilities are required to obtain an Indirect Discharge Permit (IDPs) prior to discharging into the municipal collection system. In addition to reviewing and approving the IDPs, the municipalities sewer use ordinances is reviewed to ensure that the municipality has sufficient legal authority to permit and enforce, if necessary, against industrial dischargers. Finally, inspections are performed at the industry to ensure compliance with its permit, and at the Municipal Wastewater Treatment Facility to ensure that proper tracking and adequate record keeping are performed.

Combined Sewer Overflow Program

Combined Sewers are pipes that collect both stormwater and municipal wastewater or sewage. During dry weather, combined sewers convey wastewater to the municipal wastewater treatment facility where it is treated before being discharged to a waterbody. When it rains, however, large amounts of stormwater may enter the combined sewer and rapidly fill the pipes. If the capacity of the combined sewer or the wastewater treatment facility is exceeded, the combined sewer overflows (CSOs). To address the CSOs in the State, DES developed a CSO Control Strategy in 1989. This strategy consists of a two-step process. The first step is to determine the volume and strength of the CSO discharge and their impact on the water quality of the receiving waters. If it is determined that the CSOs violate State rules or regulations, the community is then required to determine the most cost-effective solution to abate the CSO pollution.

State Aid Grant Program (SAG)

RSA 486:1,111 established a wastewater grant program that provides financial assistance in the form of a grant for 20 percent of the eligible costs related to the planning, design and construction of certain sewage disposal facilities by municipalities. This statute sets minimum requirements that must be met for a project to be eligible for funding. Engineering firms performing professional services related to these projects must be on the Roster of Pre-qualified Consulting Engineers and these engineering services must be provided to the municipality utilizing the State Standard Contract. Payments to municipalities under these grants are normally made after the completion of the project and determination of final eligible costs.

Land Resource Management Programs

Water Supply Engineering Bureau

The Water Supply Engineering Bureau is responsible for all permitting, assistance and compliance functions related to public water supplies, administration of the Federal Safe Drinking Water Act (SDWA), and environmental laboratory accreditation. Some of the functions performed by the bureau are:

- Review proposals to create and/or expand all public water supplies (including supply sources, distribution piping and storage facilities).
- Provide technical assistance to identify problems with public water systems and assist in evaluating alternative solutions.
- Sample all public water supply systems for water quality.
- Perform field inspections (such as sanitary surveys) of public water systems for the adequacy of physical facilities and proper operation/maintenance.

- When necessary, take appropriate compliance and/or enforcement action to ensure that deficient facilities, water quality, or operational practices are corrected.
- Promote and provide technical support for aquifer protection, regionalization, fluoridation and other significant water supply issues.
- Provide water supply expertise during emergency situations such as droughts, chemical spills, vandalism, etc.
- License public water system operators.
- Provide education courses and training for public water supply system operators.
- Provide evaluation, education to private homeowners with individual well problems.
- Annually inspect and license approximately 160 youth recreational camps.

State Revolving Loan Fund (SRF)

The DWSRF provides low interest loans to both private and publicly owned water systems for infrastructure improvements and source water protection. Eligible *infrastructure* projects include those which address problems of compliance with the Safe Drinking Water Act and those which address health threats. Disadvantaged communities (where the median family income (MHI) is less than the statewide average MHI) are eligible for up to 30 percent loan forgiveness depending on the impact of the project on residential user rates. Eligible *source water protection* projects include loans for land or conservation easements or for other source water protection measures. Under the DWSRF the state is able to direct set-aside funds toward a variety of drinking water improvement activities. Under these set-asides grant funds are also available for source water protection projects.

Application for SRF funds includes submission of a pre-application to determine eligibility, a subsequent full application to determine priority, and an environmental review to determine compliance with state and federal requirements. The SRF program requires affirmative steps to comply with fair share goals for MBE/WBE utilization. Loan funds are disbursed as costs are incurred.

Filtration Grant Program

The filtration grant program established under RSA 486-A provides partial reimbursement to public water systems which have carried out improvements required by the federal Surface Water Treatment Rule. Eligible costs include planning, design and construction of filtration plants, wells and reservoirs constructed to replace abandoned surface water supplies, or improvements needed to replace or treat wells found to be quality-impaired by nearby surface waters. Reimbursement at the rate of 20 or 30 percent is made annually as costs are incurred or as debt service payments are made by the grant recipient. The higher rate of reimbursement is made where average residential user rates exceed 20 percent over the comparable statewide average rate.

The Drinking Water Source Protection Program

The Drinking Water Source Protection Program uses regulatory and non-regulatory approaches to protect, and encourage others to protect, groundwater and sources of public drinking water.

Regulatory approaches include:

- Groundwater Protection Act, RSA 485-C
- Best Management Practices to Prevent Groundwater Contamination
- Watershed Rule to Protect Surface Sources
- New Community Well Sitings
- Permitting of Sources of Bottled Water
- Large Groundwater Withdrawal Permitting
- Groundwater Discharge Registration and Permitting

- Chemical Monitoring Waivers
- Groundwater Reclassification
- Local Zoning and Health Ordinances

Non-regulatory approaches include:

- NH Groundwater and Drinking Water Protection Strategy (formerly CSGWPP)
- Drinking Water Source Assessment Program (DWSAP)
- Planning and Technical Assistance
- Land Acquisition Grants and Assistance
- Local Water Protection Grants
- Youth Education

The Water Management Section

Water resources management also involves essential planning activities. Notable among the division's planning efforts are its aquifer mapping program conducted with the U.S. Geological Survey, its well inventory program involving a computerized database, and its water user registration and reporting program begun in 1987. All these data gathering efforts are components of the division's comprehensive analysis of water availability, necessary for making predictions regarding present and future water uses.

Wetlands Bureau

The Wetlands Bureau regulates dredge, fill, and construction of structures in or adjacent to surface waters, wetlands, sand dunes, and in areas within 100 feet of the highest observable tideline. Bureau activities include permitting, outreach, and compliance in accordance with the authority of RSA 482-A. The Bureau works closely with the US Army Corps of Engineers, and nearly all permits issued by the bureau become Federal Section 404 permits under the Corps' NH State Programmatic General Permit.

Subsurface Systems Bureau

The Subsurface Systems Bureau is responsible for the review and issuance or denial of permits that govern approximately 80-85% of all development that occurs within the state of New Hampshire. In particular, the bureau is responsible for the following activities:

- Reviews applications for the subdivision of land and the design of individual septic systems.
- Performs on-site inspections of all septic systems installed in order to ensure strict compliance with the approved plans.
- Implements and administers the program for licensing both designers and installers of septic systems. No individual may submit an application nor install a septic system without first obtaining a license from this bureau.
- Investigates written complaints received by the Department of Environmental Services relative to situations which are or may be causing degradation of the state's waters.
- Coordinates other necessary permits involved in a particular project or development.

The Shoreland Protection Program

The Shoreland Protection Program serves to protect the shorelands of the state which are among its most valuable and fragile natural resources. Their protection is essential to maintain the integrity of public waters which are valuable resources held in trust by the state. The state has an interest in protecting those waters and has the jurisdiction to control the use of the public waters and the adjacent shoreland for the greatest public benefit. There is great concern throughout the state relating to the utilization, protection, restoration and preservation of shorelands because of their effect on state waters. Under current law the

potential exists for uncoordinated, unplanned and piecemeal development along the state's shorelines, which could result in significant negative impacts on the public waters of New Hampshire.

The Water Quality Engineering Section

The Water Quality Engineering Section issues permits for erosion control at construction projects and enforces these permits. The site specific (or alteration of terrain) permit program is intended to protect New Hampshire surface waters by controlling soil erosion and managing stormwater runoff from developed areas. A permit is required whenever a project proposes to disturb more than 100,000 square feet of terrain (50,000 square feet if within the protected shoreland). The program applies to both earth moving operations, such as gravel pits, as well as industrial, commercial and residential developments. Permits are issued by DES after a technical review of plans and documentation submitted with an application and the appropriate fee. DES personnel are available to discuss proposed projects on a preliminary basis prior to submission of the application so as to assure compliance with the program.

The Dam Bureau

The Dam Bureau operates and maintains 113 department-owned dams, performs the repairs required on all 258 state-owned dams, reviews applications to construct dams, and inspects all dams for safety. Its mission and guiding principles are to insure all dams of the 3,200 in New Hampshire are constructed, maintained and operated in a safe manner and that lake levels, stream flows, and the state's surface and groundwater resources are used efficiently and managed to protect environmental quality, enhance public safety and flood protection, and to support and balance a variety of social and ecological water needs. The Dam Bureau also assists owners in the removal of unwanted and obsolete dams and the restoration of rivers to their natural, free-flowing condition.

The Winnipesaukee River Basin Bureau

The Winnipesaukee River Basin Program (WRBP) is the state-owned sewer system serving portions of the New Hampshire Lakes Region communities of Center Harbor, Moultonboro, Gilford, Meredith, Laconia, Belmont, Sanbornton, Northfield, Tilton, and Franklin. The WRBP's highly regarded wastewater collection and treatment facilities, which include a treatment plant in Franklin, are operated by employees of the state's Department of Environmental Services (DES) on behalf of the communities benefiting from the facilities. A total of nearly $70 million has been spent to construct these facilities and a little more than $2 million is spent each year to operate and maintain them. Much has been accomplished by the WRBP over the years, as evidenced by greatly improved water quality throughout the Lake Winnipesaukee and Winnipesaukee River Watersheds.

OFFICE OF THE COMMISSIONER

Administrative Services Unit

This unit is responsible for all accounting functions, federal grants, purchasing, budgets, property records, payroll, and financial reporting.

Geology Unit

The State Geologist advises DES and all other branches of state and local government concerning geology-related issues. The state geologist maintains liaison with federal and other state geologic agencies and with the University of N.H.

Human Resources (HR) Unit

HR is responsible for functions such as organizational and employee development, employment, compensation and benefits, employee relations for the DES, and various training and record keeping (including quality-related training).

Information Resources Management Unit (IRMU)   **NOTE: Now part of the NH Office of Information Technology**

IRMU is responsible for all computer hardware and software at DES, including purchasing, installation, and maintenance. IRMU works under statewide policies for computer equipment and use promulgated by the N.H. Department of Administrative Services, Division of Information Technology Management. DES's Geographic Information Systems (GIS) efforts are coordinated by IRMU.

Laboratory Services Unit

The DES Laboratory is a fully-certified laboratory that conducts testing of drinking water, surface water and groundwater from both background and contaminated waste materials and soils. Testing for microbiological, inorganic, organic, and radiochemical parameters is conducted in-house.

Legal Unit

The Legal Unit is responsible for conducting administrative hearings on proposed administrative fines and license revocation/suspensions and for providing other legal support to DES. The Legal Unit also oversees all DES administrative rule-making and administrative enforcement. The Legal Unit does not serve as General Counsel to DES; that role is filled by the N.H. Department of Justice, Attorney General's Office (NHDOJ). DES refers appropriate enforcement cases for judicial action (civil or criminal) to the NHDOJ and requests NHDOJ representation in some administrative matters.

One-Stop Environmental Reporting and Information Access Program

The One-Stop program is an effort to coordinate and consolidate place-related information from all of DES's regulatory programs to eliminate redundancies, allow better information management, and allow the public and all interested persons better access to important environmental information.

Planning Unit

The Planning Unit is responsible for DES planning functions, including strategic planning, Performance Partnership Agreements, and grants with the U.S. EPA (USEPA), and performance measures and environmental reporting, among other duties. The Planning Unit houses the Chief of Planning and Policy who serves as the DES Quality Assurance Manager.

Public Information and Permitting (PIP) Unit

PIP is responsible for the coordination of DES communications with the public and media outlets, and for coordination of publications development and dissemination by the various agency programs. PIP also provides technical permit coordination services, in cooperation with other federal, state, and local agencies, to familiarize and assist new companies, organizations, government agencies, and individuals (who may be anticipating relocation to, or expansion within the state) with interpretation of regulatory requirements (including their applicability) and the availability of integrated permitting assistance from the agency. The Public Information Center, including sections for publications sales, file review, and the DES Library, is also managed by PIP to help ensure that the agency's stakeholders have continuous access to the most current resources for environmental information and data.

APPENDIX C -- DES SATELLITE OFFICES MAP
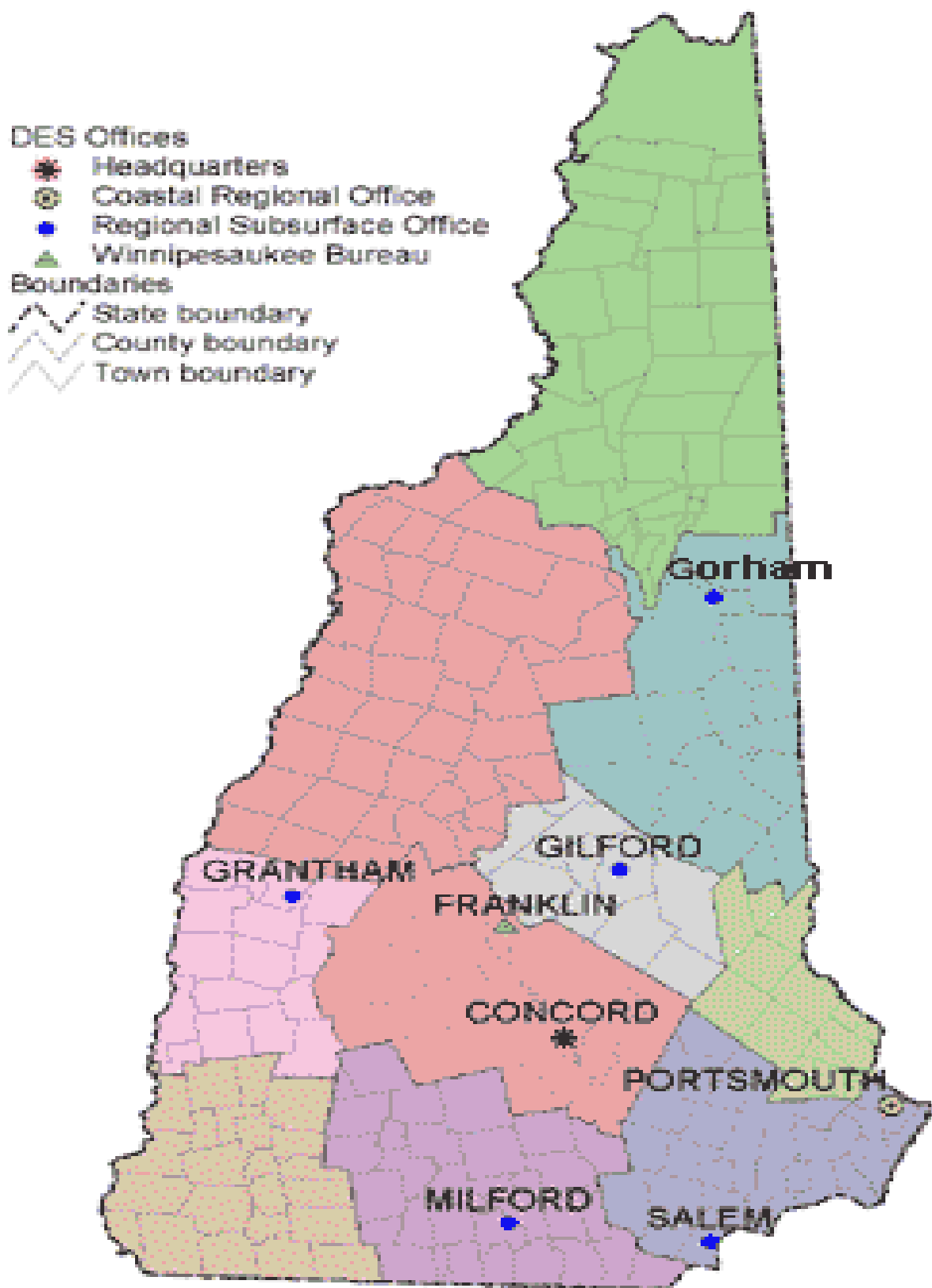
APPENDIX D -- DES QUALITY ASSURANCE TEAM

Main Contact Information (unless otherwise noted):

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Web: http://www.des.nh.gov

Franklin Wastewater Treatment Facility (WWTF)
528 River Street, P.O. Box 68
Franklin, NH 03235
Phone: (603) 934-2809
Fax: (603) 934-4831

Bureau/Program Represented	Title	Staff Currently Holding Position
Department-wide/Office of the Commissioner	Chief of Planning and Policy (Quality Assurance Manager)	Vincent Perelli (603) 271-8989
Laboratory Services Unit	Laboratory QC Manager	Rachel Rainey (603) 271-2994
Water Division – Water Supply Engineering Bureau	Environmental Laboratory Accreditation Program Mgr.	Charles Dyer (603) 271-2991 *(Transitioning off Team)*
Water Division – Watershed Management Bureau	Limnology Center QA Coordinator	Andrew Chapman 603) 271-5334
Water Division – Watershed Management Bureau	Watershed Assistance Section Non-Point Source Specialist	Andrea Donlon (603) 271-8801 *(Leaving Team - 11/06)*
Water Division – Wastewater Engineering Bureau	Environmental Inspector Program QA Officer	Thomas Croteau (603) 271-2985
Water Division – Winnipesaukee River Basin Bureau	Laboratory Director Franklin WWTF	Vicki Whittemore (603) 934-2809
Air Resources Division – Technical Services Bureau	Quality Assurance Project Plan (QAPP) Coordinator	Kendall Perkins (603) 271-1384
Waste Management Division – Site Remediation Programs	Innovative Technology Coordinator	Robert Minicucci (603) 271-2941
	(Assistant QA Manager) Quality Assurance Coordinator	Sharon Perkins (603) 271-6805
Waste Management Division – Waste Management Programs	Quality Assurance Coordinator	Wendy Bonner (603) 271-6425

Date: October 31, 2003   **Revision:** 4

APPENDIX E -- CHAPTER IV – *DES COMPLIANCE ASSURANCE RESPONSE POLICY*

IV. Inspections and Information Requests

IV. Inspections and Information Requests

A. Introduction

As noted in Chapter I, the goal of ensuring compliance requires DES to undertake activities that support a determination of whether a person who is subject to environmental laws is in compliance. In many cases, an inspection of a site, facility, or activity is the key to an accurate compliance determination. An inspection may be a regular (*e.g.*, annual) visit to a facility, it may be part of a pre-determined targeting strategy, or it may be part of the response to a citizen complaint or other source of information which leads DES to believe that a violation may have occurred or be occurring. An inspection can include (but is not limited to) photographing or videotaping activities or conditions, sampling actual or suspected wastes and waste streams, and interviewing employees of the regulated entity or other potentially knowledgeable individuals. The circumstances surrounding the inspection (including the reason for the inspection) will determine what specific activities are needed.

Site/facility representatives should be aware that although DES is doing more multi-media inspections, most inspections are still single-media based. This means that an inspection by staff from one DES program (*e.g.*, NPDES/surface water discharges) probably will not cover compliance with requirements of other DES programs (*e.g.*, RCRA-C/hazardous waste), and it certainly does not preclude any other applicable DES program from doing an inspection of the same site/facility/activity. Also, an inspection by DES does not preclude an inspection by EPA under the same program or under a different one. Finally, site/facility representatives should be aware that they may be subject to regulation by more than one state agency (*e.g.*, Department of Labor, Department of Revenue Administration), and that information given to one state agency does *not* mean that all state agencies have the information.

In addition to conducting inspections, DES occasionally requests a regulated entity to submit information as part of a compliance determination. For example, such requests may be made for records that were not available at the time of an inspection (*e.g.*, records kept at the home office of a company that has more than one location) or for reports that are required by environmental laws to be submitted on a regular basis but that were not received by DES on time.

Since DES typically does not know whether a site, facility, or activity is in compliance prior to doing an inspection, all field work must be conducted in such a way that an enforcement action can be supported if it is the most appropriate follow-up. Not only is it important for DES to gather all necessary information and properly document it, but it is also important for the work to be done in a safe manner that does not jeopardize anyone' health or well being.

B. Inspections

1. <u>Nature and Scope</u>

The nature and scope of an inspection depends, as noted above, on the reason for the inspection and what information is needed to make a compliance determination. This can vary widely from one DES program to another. For example, an inspection done under RSA 483-B, the Comprehensive Shoreland Protection Program, may involve comparing "before" and "after" photographs of a site, counting the number of fresh-cut stumps on the site, or looking at building plans or staked areas on the property to determine the appropriate building envelope. This is

quite different from an inspection of a wastewater treatment facility, where DES will observe the facility's operations, inspect daily laboratory records and other log sheets, and sample effluent. This in turn is quite different from an inspection of a hazardous waste transporter, which involves examining the vehicle in which hazardous wastes are being transported, inspecting the containers in which the hazardous wastes are being carried, and checking the transporter s registration papers and the manifests required to accompany the wastes during transport. A transporter inspection in turn is quite different from an inspection under RSA 482-A relative to dredging and filling in wetlands, for which DES will observe (and possibly sample) vegetation, hydrology, and soil types on disturbed and undisturbed areas of a property.

    2.   <u>Inspectors</u>

All inspections are done by trained DES staff. All DES staff carry photo-identification cards that clearly identify the individual as a DES employee, and most carry business cards. Most DES inspectors now also wear distinctive DES field apparel, which can help people to identify the individual as a DES inspector. DES staff will drive a state-registered vehicle (bearing a license plate of ES##) to an inspection if one is available.

Occupational safety and health training is provided to all DES staff whose job tasks require such training. Staff members whose jobs require specific safety training, such as use of personal protective equipment, confined space entry, *etc.*, receive that training in accordance with applicable recommendations and requirements as set forth by OSHA, NIOSH, *etc.* All personnel are encouraged to be safety pro-active. Programs have identified the safety issues most likely to be encountered during a typical inspection and have tried to ensure that inspectors are equipped appropriately, *e.g.*, with safety glasses, steel-toed boots, high visibility/reflective vests, *etc.*

    3.   <u>Right to Inspect</u>

        a.   Statutory Authorization

Each statute underlying a regulatory program implemented by DES authorizes DES to inspect land and buildings on or in which the regulated activity may be occurring, subject to the requirements of the statute. A list of the statutory inspection authorities for DES programs and the text of the provisions can be found in **Appendix IV-1**.

        b.   Consent to/Refusing an Inspection

DES typically seeks consent for an inspection from the site/facility representative. Upon arrival at a site/facility, DES staff will identify themselves and present their credentials, and ask to see the site/facility representative to explain the reason for the visit.

The site/facility representative legally can refuse to allow a DES inspector to undertake an inspection if the inspector does not have a warrant. However, in such cases DES can (and usually will) obtain an administrative inspection warrant under RSA 595-B. If a DES inspector presents an administrative inspection warrant, the responsible person cannot legally refuse the inspection.

If the DES inspector does not have an administrative inspection warrant and an individual refuses to allow an inspection, the DES inspector usually will ask for the identity of the individual refusing entry and the reason for the denial. The inspector usually will explain the statutory authority for the inspection and provide a copy of the statutory provision. If the individual still refuses entry, the inspector has three options:

- Reschedule the inspection at a time that the individual agrees to;
- Negotiate entry, possibly with a more senior representative of the site/facility; or
- Seek a warrant (usually an administrative inspection warrant under RSA 595-B).

When negotiating entry, the inspector may suggest that the site/facility representative contact his/her attorney for advice. An attorney usually will recognize and understand statutory authority and advise the representative to allow the DES inspector to have access to the site/facility. Note that it is **not** an acceptable condition of entry for a DES inspector to sign a "confidentiality agreement" or other liability waiver offered by a site/facility that is about to be inspected. If a site/facility representative refuses entry to an inspector unless the agreement or waiver is signed, the inspector will leave and obtain a warrant for the inspection (see below).

c.   Administrative Inspection Warrants

To obtain an administrative inspection warrant, DES must be prepared to show the specific basis for the belief that a violation exists or to present evidence that the site/facility/activity was selected for inspection on the basis of a general administrative plan derived from neutral sources (*e.g.*, statistics, environmental monitoring, or an objective targeting strategy). The AGO usually assists DES when an administrative inspection warrant is needed. An application for the warrant is prepared, together with a supporting affidavit. The affidavit is a sworn written statement that sets forth the particulars of the case and provides the required basis for the warrant, including the facts and circumstances surrounding the denial of entry or   reasonably justifying the failure to seek such consent.   RSA 595-B:2, I.

The application package usually is then presented to a district court judge. DES must be prepared to answer any questions the judge may have. If all is in order, the judge will sign the warrant. The warrant specifies, among other things, the time, date, place, and scope of the inspection.

A DES inspector usually will serve the inspection warrant once it is obtained and then conduct the inspection. If no one is present at the site, a copy of the warrant is left at the site in a location where the owner is likely to find it. The inspector may be accompanied by a law enforcement official while serving the warrant. The law enforcement officer may stay with the DES inspector during the inspection to ensure that there is no interference after service of the warrant and during the inspection.

Upon completion of the inspection, the warrant return will be completed and brought back to the court that issued the warrant. As part of this return, an inventory of the material seized or samples taken during the inspection will be completed. The inventory is signed by the DES inspector. A copy of the inventory must also be provided to the site/facility representative.

d.   Criminal Search Warrants

RSA 595-A provides for the issuance of criminal search warrants. This statute does not supersede or modify the standards of Part I, Article 19 of the NH Constitution and the Fourth and Fourteen Amendments of the United States Constitution. Because evidence seized in violation of an individual's constitutional rights may be excluded from trial, the procedures involved in obtaining and executing search warrants are of utmost importance.

The process described for administrative inspection warrants is also followed for criminal search warrants. Applications for criminal warrants are usually subjected to more scrutiny by a judge and are also more likely to be challenged later by the defense. The affidavit must specify what illegal activity is suspected and demonstrate a solid basis for that belief. The warrant will specify what materials or items can be seized and what activities can be conducted under the authority of the warrant. Items seized in a criminal search warrant must be one of the following (ref. RSA 595-A:1):

- property designed or intended for use, or which is being or has been used, as the means of committing a criminal offense.
- property which is evidence of the crime to which the probable cause upon which the search warrant is issued relates (*i.e.,* including "mere evidence").
- property which is stolen, embezzled or fraudulently obtained;
- property which is contraband.

e.   Constitutional/Common Law Search and Seizure Issues

Part I, Article 19 of the NH Constitution and the Fourth Amendment of the United States Constitution protects people against "unreasonable" searches and from having evidence that was seized during such a search from being used against them. This more commonly arises in criminal cases rather than in civil cases, and usually is more of an issue in a warrantless search. (That is, if a warrant for the search has been properly obtained, the "unreasonable" issue usually is not present.) However, in addition to any statutory authority for warrantless inspections (such as noted above), there are several circumstances that enable certain inspections to be conducted without a warrant. Some of the exceptions that are most likely to be relevant in environmental enforcement are listed below. Please note that these are general guidelines only.

i.   *Open Fields*

The open fields exception eliminates the warrant requirement for any unoccupied or undeveloped area except that zone or space immediately around an occupied dwelling (the "curtilage"). This exception is not (legally) eliminated by placement of "No Trespassing" signs. That is, courts have stated that there cannot be a reasonable expectation of privacy in such open areas, so the existence of such warnings cannot alter the government's ability to proceed if there is a legitimate basis for government inspectors to be there. Most courts have held that the concept of curtilage does not apply to non-residential properties. In those cases, courts consider whether the property owner s expectation of privacy is one that society is willing to recognize.

ii.   *Plain View*

The plain view exception provides that government officials may seize evidence falling within their view without a warrant so long as they have a legitimate reason to be in the position

where they observe the evidence. Thus, an inspector properly making an inspection of a facility may examine drums, papers, *etc.* that the inspector notices while conducting the inspection, and take samples or photographs or make copies as needed.

iii. *Abandoned Property*

The abandoned property exception recognizes that there is no reasonable expectation of privacy for property that has been abandoned or discarded. Thus, it would not be an "unreasonable" search to examine drums of waste in a field or garbage dumped along the road.

iv. *Closely-Regulated Industry*

The pervasively- or closely-regulated industry exception allows warrantless entry into those businesses which are so subject to close governmental supervision that persons choosing to engage in such businesses can enjoy no reasonable expectation of privacy. The list of industries subject to such level of regulation is growing at both the federal and state level. It is sometimes enough that a permit is required for the facility or activity for the facility/activity to be deemed "closely regulated."

v. *Emergencies*

Emergency entry onto a property to address an immediate threat to public safety or potential property damage usually is not unreasonable. Items observed in plain view during valid emergency responses are subject to warrantless seizure.

4. Notice

Prior notice is not required for an inspection under most federal environmental laws (*e.g.*, Clean Air Act, Clean Water Act, RCRA, CERCLA), and none of the statutes authorizing DES to inspect property or facilities requires DES to notify the site/facility representative in advance of a pending inspection. It thus is DES's policy to conduct unannounced inspections to the extent possible. There are two main reasons for this. First, many activities which might violate environmental laws can be hidden or temporarily suspended if notice of an inspection is given in advance, and DES needs to see typical conditions in order to adequately protect public health and the environment. Also, with these kinds of potential violations, announced inspections actually are less fair to those who are in compliance anyway, since DES may not find a violation which is giving a competitor an unfair advantage. Second, many DES inspectors plan a full day of inspections in a general area, but can t tell in advance when they might be at a particular site or facility. If one inspection lasts much longer (or much shorter) than originally anticipated, the inspector may have no way of getting in touch with the person to be met at the next site, resulting in wasted time for the site/facility representative (or the inspector). If the activity or condition can't be easily hidden or suspended or if it is necessary to the purpose of the inspection to have the site/facility representative present during the inspection, DES will notify the site/facility representative of the pending inspection and will, to the extent reasonable, accommodate the person's schedule.

5. <u>During an Inspection</u>

A typical inspection includes an initial surveillance, an entry interview, the actual inspection of the site/facility, and an exit interview. The length of each of these segments will vary depending on the type of inspection and the number of people involved.

    a.   Initial Overview

Upon arriving at the site/facility but prior to entering it, the DES inspector usually will observe the site/facility from its perimeter, if possible. The inspector will note any odors emanating from the site/facility and determine, if possible, the source or general area where the odors originate. The inspector will note whether there are any visible air or water emissions from any points, and whether any vegetation around the site/facility is stressed, especially near emission points. The inspector will also note the general condition of the site/facility, including the condition of any buildings on the site (*e.g.*, is there rust on stacks? is the building generally in decay?) and whether there are any obvious waste or burn piles. Any conditions observed will be documented and further investigated if possible during the inspection. The DES inspector will also try to evaluate the potential impact of the site/facility on the surrounding area, including receptors such as residences, schools, or hospitals.

    b.   Entry Interview

Once in contact with the appropriate site/facility representative, the inspector will explain the purpose of the visit and briefly outline the scope of the inspection. If possible, the inspector will give the site/facility representative an estimate of how long the inspection will take. Safety issues, policies on taking photos, and potential claims of confidentiality (if applicable) usually also will be discussed at this time with the site/facility representative. If the inspection is of a facility with one or more process lines, prior to actually doing the inspection the inspector usually will verify process descriptions and update them as necessary. Inspectors for some programs also will use this meeting to verify the applicability of program requirements and to review records related to scope and objectives of the inspection.

    c.   Checklists; Actual Inspection; Taking Samples

DES inspectors usually will use a checklist to keep the inspection organized and ensure that no areas of concern are missed. Most DES inspectors will offer a blank checklist to the site/facility representative at the beginning of the inspection, to allow the person to understand what will be covered in the inspection and to provide a convenient way for the person to keep notes during the inspection. If a copy of the checklist is not offered, the site/facility representative may request one.

During the actual inspection, the inspector will observe any relevant processes, control equipment, operations, and site conditions. As appropriate, the inspector will take samples and photographs, and will obtain representative copies of relevant records. Samples must be taken in certified containers that are clean and appropriate to the material being sampled and the test(s) to be done. DES inspectors may not rely on containers supplied by the site/facility representative. In some circumstances, it may be necessary to have a site/facility representative physically take the sample. If this is the case, the inspector must make sure that the sampling is done under direct DES supervision, using DES containers, and that proper techniques are used. If split

samples are taken for the site/facility, identical DES containers will be used and the receipt or refusal of split samples will be documented.

     d.   Exit Interview

Many programs find that it is helpful to conduct an exit interview, or inspection review, with the site/facility representative(s) prior to leaving the site/facility at the end of the inspection. The exit interview usually will include the most senior site/facility personnel available. At this meeting, the DES inspector will review the <u>facts</u> that were observed during the inspection. Findings and concerns may be discussed in general to give the site/facility representatives the opportunity to collect and present additional information, or to correct any misrepresentations that may have been made.

If the inspector believes, based on the inspection, that a violation definitely occurred or is on-going, the site/facility representative usually will be informed so that steps can be taken promptly to correct the violation. If it is not 100% clear that a violation occurred, the inspector usually will inform the site/facility representative of the basis for the concern, and indicate that DES will communicate with the site/facility after a complete compliance determination is made. Since DES inspectors do not make the final decision about what response DES will take to a violation, the inspector should **never** indicate what type of enforcement action will be taken based on the results of the inspection, although the inspector may inform the site/facility representative of the full range of options available to DES (as discussed in Chapter V). The inspector should emphasize that the final decision will be made by others back at the office.

It is also appropriate at the exit interview for the inspector to note any claims of confidential business information ("CBI") that relate to copies of documents which the inspector obtained during the inspection. If a site/facility representative wants to make a claim that the copies are or contain CBI, the inspector must make sure that the relevant pages are so stamped and that the claim is limited to information that is confidential under applicable environmental laws.

Prior to leaving the site/facility, the DES inspector will request any additional information that is known to be needed and will establish when the requested records will be provided and who will provide the records.

    6.   <u>Post-Inspection Follow-Up</u>

After the inspection, DES will evaluate the information collected during the inspection, plus any other information received, to determine whether there are non-compliance issues that must be addressed. The evaluation should ensure that:

o   All applicable requirements have been identified for the site/facility and all have been properly evaluated for applicability and compliance with those rules, within the scope of the inspection.

o   All discrepancies between the facts at the site/facility and the representations in the site/facility s permit or permit application (if any) have been thoroughly documented.

o   All apparent violations have been thoroughly documented.

- All information needed to complete the inspection report has been obtained from the site/facility, and if not, the information has been requested and both the inspector and the site/facility representative know who is responsible for providing the information.

- All copies of records and documents obtained from the site/facility during or after the inspection are on hand and properly identified.

At this time, DES may also identify additional information that is needed, and make an information request. Information requests are discussed in part C, below.

After reviewing the available information, DES will determine whether the site, activity, or facility was in compliance, and if violations are identified will proceed to determine (and take) an appropriate response, as discussed in Chapter I.

C. Information Requests

As noted in the Introduction to this chapter, DES occasionally requests a regulated entity to submit information as part of a compliance determination. Whether the regulated entity is required to submit the information may depend on the basis for the request.

1. Statutes

Certain statutes implemented by DES authorize DES to require the submittal of information. For example, RSA 125-C:4, II authorizes the Commissioner "to issue subpoenas requiring the attendance of such witnesses and the production of such evidence and to administer such oaths and to take such testimony as he may deem necessary." Similarly, RSA 485-A:18, II requires a person who is subject to pretreatment or surface water discharge requirements to provide information pertaining to the person's activities upon written request of DES, and RSA 485-A:20 authorizes DES to "subpoena witnesses and administer oaths in any proceeding or examination instituted before or conducted by it, and to compel the production of any ... documents ... necessary to the purposes of [RSA 485-A]." If a request for information is made pursuant to these authorities, the person is legally obligated to provide the information.

2. Rules

Many programs have developed rules that require certain records to be maintained. Some of the rules require that these records be submitted periodically to DES, while others only require the records to be made available upon request by DES. If DES requests records that are required by rule to be maintained, the regulated entity is legally obligated to provide the records upon request, and failure to do so constitutes a violation separate and distinct from any violation that may be shown by the information in the records.

3. Permits

If a site, facility, or activity is required by statute to have a permit, the permit itself may contain record keeping or reporting requirements. As with records required by rules, if DES requests records that are required by a permit to be maintained, the regulated entity is legally obligated to provide the records upon request, and failure to do so constitutes a violation separate and distinct from any violation that may be shown by the information in the records.

4. Orders

If DES issues an administrative order (or administrative order by consent), the order may contain a requirement to keep records not otherwise required to be kept (*e.g.*, logs of more frequent sampling than otherwise required) and to submit such records as provided in the order. If a regulated entity receives an order that contains a requirement to maintain or submit records, the regulated entity is legally obligated to provide the records, and failure to do so constitutes a violation of the order separate and distinct from any violation that may be shown by the information in the records.

5. Other Requests

DES may also request information in circumstances in which none of the above factors applies. For example, if DES sends a Notice of Findings to a regulated entity, the NOF will include a request for the regulated entity to respond to the NOF, which may include providing records not otherwise required to be maintained or submitted. In such cases, the regulated entity is **not** legally obligated to provide the records, and failure to do so does **not** constitute a violation.

However, even if the requested information shows that violations occurred, it usually is in the regulated entity's best interest to respond as promptly and completely as possible. DES always considers the regulated entity's degree of cooperation when considering how best to respond to a violation. Also, information usually can be obtained in the course of a civil lawsuit (initiated by the AGO after a referral from DES) even if DES couldn't otherwise compel its production -- but if DES refers the case, the regulated entity's costs almost certainly will be higher than if DES handles the case administratively, both in terms of penalties (because civil penalties are almost always higher than administrative fines) and transaction costs (because the regulated entity will almost always want a lawyer to deal with the AGO, but may feel comfortable dealing with DES directly without a lawyer).

An applicant may not be legally obligated to provide information beyond that specified in a rule to support an application. However, in the context of an application, if DES requests additional information it usually is because there is insufficient information in the file to support issuing the permit that has been applied for. In such a case, the applicant may not be legally obligated to provide the information, but probably won't get a permit if the information isn't provided. If the permit isn't issued but is required for the activity the applicant wants to undertake, the applicant can be cited for failing to have a permit if the activity is commenced anyway.

APPENDIX F -- STANDARD STATE CONTRACT WITH TERMS/CONDITIONS AND SAMPLE EXHIBITS

EXHIBIT A

SCOPE OF SERVICES

EXHIBIT B

PAYMENT SCHEDULE

EXHIBIT C

SPECIAL CONDITIONS

Sub-paragraph 1.7 and paragraph 14 of the General Provisions shall not apply to this Agreement.

APPENDIX G -- CHAPTER V – *DES COMPLIANCE ASSURANCE RESPONSE POLICY*

V. Enforcement

V. ENFORCEMENT

A. Public Access to Enforcement Files

1. File Contents

As noted in Chapter I, most documents contained in state agency files are considered to be public records and are subject to inspection by members of the public under RSA 91-A. Also as noted in Chapter I, some materials in state agency files are not considered to be public documents and so will not be made available to the public. Non-public materials likely to be found in an enforcement file include attorney-client communications, material which would reveal law enforcement investigative techniques or disclose a confidential informant, and certain document drafts or intra-office communications that reflect agency deliberations preliminary to a final decision.

2. Complainant Confidentiality

An investigation often will be prompted by a complainant who does not want to be identified to the Respondent. While many DES programs will not accept fully anonymous complaints, a complainant sometimes requests, as a condition of providing information, that his/her name not be released to the public. In such cases, DES usually will agree to try to protect the source's identity unless it becomes necessary to reveal the source (either because DES will not be able to fully pursue the case unless the name is released or because a court has ordered DES to reveal the source of the complaint). If possible, DES will try to find out at the time the complaint is filed whether the complainant expects his/her name to be kept confidential.

B. Enforcement Document Elements

Every enforcement document issued by DES will clearly identify the following elements:

- The parties to the action;
- The subject of the action;
- The factual basis for the violations;
- The applicable legal requirements;
- The violations; and
- The desired outcome.

These elements are discussed below.

1. Parties to the Action

For DES enforcement actions, the "parties to the action" consist of DES and the target(s) of the action (the Respondent(s)). Other individuals or entities, such as municipal officials, abutters, the state representative or senator for the area, an environmental group, or a trade organization, may be interested in the action -- but individuals or entities who are not legally responsible for any of the violations identified in the action are *not* parties to the action. Such persons may, however, be on the "cc" list to receive a copy of the document.

Some cases may have more than one responsible party. Usually, every person who is responsible for causing or correcting a violation will be subject to the enforcement action. In this context, "responsible" is usually taken to mean both legally liable (*i.e.*, the statute confers liability on the person based on the person's status as an actor or a property owner) and responsible as a practical matter (*i.e.*, the person knew or should have known about the action that constituted the violation and either actively participated or at least did not act to prevent the violation).

For compliance actions and civil judicial penalty actions, multiple responsible parties are typically named in (*i.e.*, issued) the same enforcement document. For administrative penalty actions, separate actions may be initiated.

2. Subject of the Action

The "subject of the action" is the land, facility, device, or vehicle that is the underlying target or cause of the enforcement action. For example, if an action is being taken for illegally disposing of solid waste on a person's property or for installing or using a septic system without prior approval, the "subject of the action" is the land itself, and will be identified clearly enough so as to leave no doubt of its location. If the action is being taken for improper storage of hazardous wastes, the "subject of the action" is the "facility", *i.e.*, the building in which hazardous wastes are stored.

Sometimes the subject of the action is unconnected to a particular property. For example, in a case where there is unpermitted transportation of hazardous waste, the "subject of the action" is the vehicle used for the transportation; in a case where someone is operating a diesel generator without a permit, the "subject of the action" is the "device" or generator itself. In such cases, the enforcement document still will include information about the location of the violation, but strict identification of the location is less significant than accurate identification of the vehicle or device.

3. Factual Basis for the Violations

The "factual basis for the violations" is the totality of the facts that supports or proves DES's determination that a violation occurred. Various sources of facts are available, including observations made during an inspection, information supplied (or not supplied) by the responsible party, statements made by abutters or facility personnel, and the like.

4. Applicable Legal Requirements

The "applicable legal requirements" are the environmental laws (statutes, rules, or permit conditions) that apply to the activity that forms the basis of the violation. In most cases, this will include at a minimum the statutory requirement or the statutory authority to adopt rules or issue permits and one or more specific rules or permit conditions.

5. Violations

After identifying what happened (the facts) and what legal requirements apply, the enforcement document will recite the legal conclusion that the targeted party has committed specific violations. For instance, based on the facts that (1) John Doe spread septage on his

neighbor's land, (2) the land was not a permitted septage disposal site, (3) the statute authorizes DES to regulate the activity through a permit system, (4) DES has adopted rules to implement the permit system, and (5) the rules require that a site be permitted prior to using it as a septage disposal site, we can conclude that   John Doe has violated Env-Ws 1604.01(b) by disposing of septage at an unpermitted site. Usually, each violation will be stated separately.

6.   Desired Outcome

The desired outcome is, in every compliance action, compliance with applicable environmental laws. If there is more than one way of achieving compliance and any of the various ways is acceptable, then the enforcement document typically will request or order that the Respondent comply with the applicable environmental laws. If the specific compliance action is not clear from the violation itself (*e.g.*, the specific compliance action for undertaking an activity without a required permit usually is to apply for the permit) and/or additional actions, such as submission of progress reports, are required, then **all** of the action(s) that the Respondent is being required to undertake will be specifically identified.

In an administrative fine case, the desired outcome is payment of the fine. However, since the fine can only be imposed after notice and opportunity for a hearing, the notice of proposed fine can't order or require the Respondent to pay. Instead, it states that the Division is seeking a fine of $X and informs the Respondent of (among other things) the date and time of the scheduled hearing and the consequences of not responding to the notice.

C. Enforcement and Enforcement-Related Mechanisms

As noted in Chapter I, DES has many types of enforcement and enforcement-related documents available for use in any given case. The format and effect of these documents, as well as appropriate action for the Respondent to take, are described more fully in this part.

1.   Notice of Past Violation

DES occasionally runs across the following situation: a program discovers a violation; the responsible party returns to compliance prior to the program taking any action; seeking an administrative fine for the violation is not appropriate; but the program wants to have a record that the violation occurred in the event of a future action against the same responsible party. In such a case, a Notice of Past Violation ("NPV") may be issued. The NPV serves to create a record that DES believes that the violation occurred and that it has been addressed. The NPV in and of itself is not proof that a violation occurred, so if DES uses the past violation in a subsequent proceeding, DES will offer proof of the past violation as appropriate along with proof of the current violation.

The NPV is a letter with a listing of the violations alleged to have occurred. The letter acknowledges that the violations have been corrected and states that no further action related to the listed violations is required. If inspections have occurred since the one that originally revealed the violations and no further violations were observed, a brief statement to that effect usually will be included.

If the violation(s) cited in the NPV have not already been discussed with the Respondent, the NPV should invite the Respondent to provide any information that may be available to

disprove the conclusions reached in the NPV. Because the NPV is not a legal determination that the violation occurred, there is no right to appeal an NPV. If a Respondent receives an NPV without prior contact from DES and believes the NPV to be in error, the Respondent should submit information to DES that supports the Respondent s position.

2. Letter of Deficiency

A Letter of Deficiency ("LOD") is a letter to the Respondent which identifies violations that DES believes to have occurred and the applicable environmental laws, and which requests the Respondent to come into compliance with the applicable requirements. An LOD constitutes a compliance action, and so is only issued if violations have occurred or are on-going. If DES has reason to believe that a violation *might* occur in the future but no violation *has yet* occurred, often a letter will be sent that provides information about the statute and/or rules and offers assistance if appropriate (including a referral to the P2 program). Sometimes, DES will send a letter requesting additional information (as discussed in Chapter IV, Part C).

Although an LOD is issued when deficiencies (violations) actually exist, it is not an order but a notice of known deficiencies and a *request* for voluntary compliance. Mandatory language is used in LOD only when identifying a legal requirement, such as RSA 149-M:9, II prohibits the disposal of solid waste at a non-permitted facility or RSA 485-A:17 requires any person who proposes to significantly alter the characteristics of the terrain to first obtain a permit from DES. While the Respondent ultimately may not have any choice about addressing the cited deficiencies and will ultimately have to comply with the applicable environmental laws, the LOD is still just a notice of the problems and a *request* for *voluntary compliance*. An LOD is like a "warning shot over the bow": the boat being shot at doesn't have to stop (since it doesn't have a hole in it yet), but if it doesn't, more serious consequences are likely to follow.

The LOD cannot be "enforced" or appealed, since it is merely a notice of a problem. (A Respondent who receives an LOD with a notice of proposed fine has a right to a hearing on the proposed fine, at which the factual basis of the violations and the conclusions that the violations occurred can be challenged.) However, the LOD does serve to put the Respondent on notice of the violation. If the violation continues or recurs, the Respondent subsequently may be charged with committing the violation "willfully" or "knowingly," usually resulting in stiffer penalties. Thus, if a Respondent believes the LOD to be in error, the Respondent should submit information to DES that supports the Respondent's position.

An LOD is written on DES letterhead in the form of a letter. The words "Letter of Deficiency" will be written to the right of the name and address of the Respondent, and will be followed by a unique docket number (assigned by DES to facilitate tracking). The LOD will contain the elements discussed in Part B, above. However, because an LOD is less formal than an administrative order ("AO"), the Respondent is identified in the name/address portion of the letter, and DES, applicable law, and the subject property are usually described in the opening paragraph. The opening paragraph can also identify how the deficiencies were discovered. Some programs include a brief statement in the opening paragraph that explains the purpose of the program, for example: "DES inspects public bathing facilities to help protect public health and safety." This is designed to help the Respondent to better understand why the LOD is being issued, and has had the effect of increasing compliance with LODs in some programs.

The LOD next lists the specific deficiencies and identifies the specific sections of environmental laws that apply to the activities. The LOD then requests the Respondent to come into compliance and specifies a time period within which DES believes compliance can be achieved. The LOD may request the Respondent to take specific action or may just generally request compliance. The LOD may also include a request that the Respondent schedule a meeting with DES or submit a report that contains a proposed compliance schedule or that describes the corrective measures that were or are proposed to be taken.

Finally, the LOD will indicate what can happen if the deficiencies are not corrected. For most programs, this includes issuing an AO and/or seeking judicial (civil or criminal) enforcement. If an administrative fine is being sought concurrently, the LOD will either state this or will specifically reserve DES's right to seek a fine. If a fine is not contemplated when the LOD is issued, the LOD will include seeking an administrative fine in the list of possible consequences for not coming into compliance.

LODs are sent certified mail, return receipt requested, to establish receipt. If the Respondent refuses to sign for an LOD, DES may hand deliver the LOD or may proceed directly to delivering an AO, since it seems unlikely that a Respondent would voluntarily comply with the request in the LOD if s/he refuses to sign for a certified letter.

Copies of the LOD are sent to municipal officials and may be sent to other interested parties such as the complainant or abutters. Everyone who receives the LOD will be put on the list to receive any follow-up (*e.g.*, Letter of Compliance or AO). In order to balance the Respondent's interest in hearing about the LOD directly from DES (and not from the newspaper) against the public's right to know (since LODs are public documents as soon as they are issued), a copy will be faxed to the Respondent if possible. If the Respondent does not have a fax or DES cannot get a fax number, then the copies will be mailed to outside parties no sooner than three days after the original is mailed. This is to give the Respondent a reasonable opportunity to receive the LOD before the LOD is mailed to local officials. If the LOD is faxed to the Respondent the day the original is mailed, the copies can be mailed with the original.

If the Respondent corrects all of the deficiencies noted in the LOD, DES will send a Letter of Compliance (LOC). Typically, the LOC indicates how DES learned that compliance was achieved (*e.g.*, received report, reinspected property), and then states that based on that, the deficiencies noted in the LOD have been corrected. If the activity from which the violations arose is a legitimate business activity that is likely to continue, the LOC usually will remind the Respondent of the on-going responsibility to comply with applicable environmental laws.

If none or only some of the deficiencies are corrected, DES will consider what further action to take, such as issuing an AO to compel compliance. An administrative fine may be sought whether or not compliance is achieved (the fine would be for the underlying violation, not for not complying with the LOD).

3. Notice of Findings; Alleged Violation Letter

A Notice of Findings ("NOF") is a letter to the Respondent that identifies all of the violations that a program, after an investigation (including record reviews and/or inspections as appropriate), believes exists at a facility. The NOF also requests a response, and so actually serves two purposes: it informs the Respondent of the violations that DES believes exist to allow

the Respondent to get an early start on correcting them, and it allows the Respondent to inform DES if the information on which the conclusions are based is incomplete or erroneous.

As with an NPV or LOD, the NOF in and of itself is not proof that a violation occurred. Unlike the NPV or LOD, though, an NOF usually is a precursor to a further action. That is, if compliance is achieved in response to an LOD, no further compliance action will be taken (although a penalty action may still be pursued). In contrast, an NOF informs the Respondent that a response will be considered by DES in determining which type of action to take -- suggesting that something else is going to happen, it's just a matter of what, and when, unless the information provided by the Respondent shows that no violations occurred.

The NOF is typically formatted as a letter with an attached chart or listing of violations, although the violations can be listed in the text of the document if they are not extensive. The NOF is signed by the Bureau Administrator, although a staff person may be identified as the contact. The original NOF is sent to the Respondent certified mail, return receipt requested. In most cases, copies of the NOF will be sent only to other DES staff (including the DES Enforcement Coordinator). The NOF is a public document, though, so if anyone (*e.g.*, the complainant or a municipal official) specifically requests a copy, one will be sent.

As indicated above, the NOF presumes that a formal enforcement action will follow unless the Respondent provides information which shows that no violations have occurred. At present, the most common NOF follow-up is to enter into an administrative order by consent (AOC) with the Respondent, with or without administrative fines or civil penalties.

Any person who receives an NOF should promptly contact the DES staff identified in the letter to discuss the allegations.

An "Alleged Violation Letter" ("AV Letter") is a letter to a responsible party that DES has received a complaint that the person is violating (or has violated) a specified statute or set of rules, and that an inspection is being scheduled. An AV Letter is most likely to be useful in a program where a violation cannot easily be concealed and where the volume of incoming complaints makes it difficult to undertake site inspections promptly in all cases. The letter usually will identify a general time frame for the anticipated inspection. An AV Letter may be useful in a subsequent enforcement action to show when the Respondent was first informed that the activities being undertaken may violate the law (especially when the activities continued after the AV Letter was received). An AV Letter's usefulness is limited, however, since it is not sent certified mail and it cannot definitively assert that a violation actually has occurred, only that DES has received a complaint.

Any person who receives an AV Letter should stop doing whatever activity prompted the letter. Anyone who has questions about the activity to which the letter relates should call the identified DES staff to discuss the situation.

4. License Action

When violations are committed by someone who holds a license from DES, DES may take an action directly against the license in addition to or in lieu of a penalty action or compliance action. (Remember that "license" is very broadly defined to include the whole or part of any

agency permit, certificate (including operator certification), approval, registration, charter or similar form of permission required by law.)

   a.   Effect of a License Action

   Suspending, revoking, or refusing to renew a license usually has the effect of imposing a monetary penalty on the license holder. In the case of an occupational license (such as a septic system designer license or a wastewater treatment facility operator certification), the license holder usually derives most or all of his/her income from that occupation and may not be able to work (at least at the same salary level) without the license. In the case of a facility or on-going activity license (such as a permit to operate or a hazardous waste transporter registration), the underlying activity must cease if the license is not in effect -- and if it doesn't, the responsible party faces penalties for operating without a license. In the case of an activity-specific license (such as an approval for a septic system or a wetlands permit), a new application may have to be prepared and filed, and work previously done may have to be undone.

   A license suspension is temporary, operating for a period of time that is specified in the decision which suspends the license. The time period can be either fixed or contingent. A fixed time period is simply a set period of time (*e.g.*, 60 days), after which the license will once again be effective or after which the license holder can request reinstatement of the license. A contingent time period is however long it takes for the license holder to undertake certain specified activities. For example, an occupational license might be suspended until the license holder attends certain classes and/or passes a test; a facility or on-going activity license might be suspended until certain violations are corrected; an activity-specific license might be suspended until the license holder submits additional information to support the application originally filed.

   Typically, a license revocation is permanent. That is, if a license is revoked after a hearing, the license holder usually cannot simply reapply for another license. A license may also be revoked for a period of time, usually measured in years rather than months, after which the (prior) license holder will be allowed to apply for a new license.

   A refusal to renew also is usually a permanent refusal to issue a new license to the (prior) license holder. However, if the basis for a refusal to renew is that the license holder has not met certain conditions for renewal, such as paying a fee or taking continuing education courses, then the decision to not renew the license usually will indicate that the license holder can reapply for a license once the conditions for obtaining the license are met.

   b.   Grounds for a License Action

   Programs that issue licenses usually have rules that specify both the procedures for initiating a license action and the grounds on which the program can suspend, revoke, or refuse to renew a license. The grounds specified in program-specific rules typically involve the competence and integrity of the license holder (for occupational licenses) or the accuracy of the information submitted on the application for the license (for facility or activity licenses).

   Env-C 209.02, which is applicable to all DES programs, specifies additional grounds for license suspension, revocation, or refusal to renew. These include that (1) the license holder owes any money (fees or fines) to DES or owes any civil or criminal penalties as a result of a judicial action taken to enforce any environmental laws, unless the money owed is being paid in

accordance with a payment schedule and the license holder is current with all payments; (2) the license holder has failed to comply with any administrative order issued by DES or any civil or criminal restoration or restitution order imposed as a result of a judicial action taken to enforce any environmental laws, unless the license holder is complying in accordance with a compliance schedule and is current with all items; and (3) within three years of the violation for which a license action has been initiated, the license holder has been the subject of two or more administrative or civil enforcement actions or one criminal enforcement action, that have not been overturned on appeal, for violation(s) of any environmental laws (including the license at issue).

An action to suspend an occupational license may be appropriate in cases where the violations committed by the license holder indicate that the license holder does not take the obligations of the occupation seriously, but are not so egregious that the license holder should be totally barred from the occupation.

An action to revoke an occupational license is appropriate where the violations committed by the license holder indicate that the license holder should not be allowed to continue in that occupation. Revocation will be considered when the license holder has engaged in criminal conduct or conduct that either alone or in conjunction with other actions demonstrates gross incompetence, gross negligence, or an unwillingness or inability to comply with applicable requirements. Revocations of occupational licenses by DES in the past few years typically have been based on falsification of information required to be reported to DES by the license holder.

An action to refuse to renew an occupational license is appropriate where a license is up for renewal and grounds to revoke the license exist, or where conditions necessary to renewal have not been met.

An action to suspend or revoke a facility or activity license may be appropriate where:

- The activities authorized by the license should not continue until violations associated with the activities have been corrected;

- Questions have arisen regarding the accuracy and completeness of the information on which the decision to issue the license was based; or

- The violations associated with the authorized activities are so egregious that the facility should be closed or the activity should not be allowed to continue at all.

If a license action is initiated based on questions about the accuracy or completeness of the application, the license typically is suspended to give the license holder an opportunity to submit accurate and complete information. If the information submitted shows that the license would have been issued if the accurate/complete information had been received originally, the license will be reinstated. If the submitted information shows that the license would not have been issued if the accurate/complete information had been received originally, the license will be revoked.

c. Initiation of a License Action

To initiate a license action, DES will inform the license holder of the proposed action (suspension, revocation, or refusal to renew) and offer the license holder the opportunity to have a hearing to show cause why the proposed action should not be taken. The notice will identify the grounds for the proposed action with enough specificity for the license holder to know exactly what issues will be raised at the hearing. No issues should be raised at the hearing that are not specified in the notice. If additional grounds arise after the initial notice is sent, a supplemental notice will be sent to alert the license holder to the additional issues. If a supplemental notice is sent, the hearing will be postponed if necessary to allow the license holder adequate time to prepare based on the new information.

The notice will include the date and time of a hearing and will identify a staff member to call with questions. Pursuant to 1999 amendments to RSA 541-A:30, the notice will also inform the license holder that s/he is entitled to be represented by an attorney (at the license holder's expense) and to have the hearing transcribed by a certified shorthand court reporter (for which DES will make arrangements, but for which the license holder must pay).

If DES makes a finding that public health, safety, or welfare requires emergency action and the notice incorporates a finding to that effect, a license suspension can be effective immediately. If this is done, an adjudicative proceeding will be commenced within ten days of the date of the notice. (DES interprets this to mean that an opportunity for a hearing must be provided within 10 days, which time limit may be waived by the license holder). Also, for emergency actions the agency is required to provide <u>and</u> <u>pay</u> <u>for</u> a certified shorthand court reporter.

d. Resolution of a License Action

As with any enforcement action, DES usually is willing to discuss settlement of a license action. Since a license action typically has a financial impact on the license holder, DES may consider whether it is desirable to settle a proposed license action by accepting payment of a fine in lieu of all or some portion of the proposed suspension period. This will be considered especially in cases where the license holder needs the license in order to generate revenue to be able to come into compliance.

If the action is not settled, a hearing will be held. The hearing is an adjudicative hearing that will be run in much the same way as an administrative fine hearing and at which the presiding officer typically will be the DES Hearings and Rules Attorney. For licenses that are overseen by a board or committee (e.g., the Water Well Board for well contractor licenses or the Wastewater Operator Certification Committee for wastewater treatment facility operators), the relevant Board or Committee will conduct the hearing. At the hearing, the program will bear the burden of proving the grounds for and appropriateness of the proposed action.

5. <u>Administrative Order by Consent</u>

a. Effect of an Administrative Order by Consent

An Administrative Order by Consent ("AOC") is a *legally enforceable* document that DES issues with the consent of the Respondent. An AOC requires the Respondent to undertake specified corrective actions in response to specifically identified violations of environmental

laws. Because the Respondent is agreeing to the AOC, administrative fines, civil penalties, and/or stipulated penalties can be included in the AOC; a separate proceeding is not needed.

b. Issuance of an Administrative Order by Consent

An AOC contains the same parts as an AO. The caption of the document is "Administrative Order by Consent" (rather than just "Administrative Order"), but the document is numbered in sequence with the AOs issued by the Division from which the AOC originates. There is a slight difference in the introductory language and the language leading into the order provisions to indicate the Respondent's consent to the AOC, and provisions regarding the Respondent's waiver of hearings and appeals is included.

Because the Respondent is agreeing to the AOC, the Respondent must sign the AOC. The signature line for the Respondent follows the body of the AOC, after which come the signature line for the Division Director and the signature line for the Commissioner. If civil penalties have been included in the AOC, there also will be a signature line for the AGO. Each signature line should have a line next to it for the signatory to enter the date of signing.

The AOC is sent (unsigned) to the Respondent for signature. The cover letter sent with the AOC will include a deadline for the Respondent to sign and return the AOC and should explain the consequences of failing to meet the deadline (*e.g.*, DES will unilaterally issue an AO, seek administrative fines, refer the case to the AGO for civil prosecution, *etc.*).

Once the Respondent signs and returns the AOC, it is signed by DES and, if the AOC includes civil penalties, by the AGO. Copies should be made and distributed only after all signatures are obtained. A copy of the AOC will be sent to the DES Enforcement Coordinator, the DES PIP Office, the AGO, and appropriate municipal officials. For programs that have federal analogs, a copy will be sent to EPA. As appropriate, copies may also be sent to others such as a complainant or a consultant who has been working on the project, or may be placed in a licensee's file. If the Respondent wants a copy of the AOC with original signatures, two copies will be prepared and routed for signature. An "original copy" is then sent to the Respondent once the AOC is fully executed.

c. Modifications to an Administrative Order by Consent

Because the Respondent has already agreed to the terms of an AOC, it is not likely that the AOC will need to be modified. However, if a modification becomes necessary or desirable, it is affected by the execution of an Amendment by Consent to the AOC. The amendment would be prepared the same way that an AO amendment is prepared, but would reflect the Respondent's consent by incorporating the same language from the AOC in the introduction and order sections of the amendment and by including signature lines for all of the parties. The Amendment is reviewed and approved the same way as the original AOC and is signed by the same parties that executed the original AOC.

d. Follow-up

DES program staff will be responsible for monitoring any compliance activities that must be undertaken pursuant to the AOC. Payment of any administrative fines will be tracked by the DES Legal Unit, while payment of any civil penalties will be tracked by the AGO.

If the Respondent fully complies with all of the items in the Order, DES will issue a Notice of Compliance ("NOC") to the Respondent. If the AOC was recorded, DES will issue a Notice of Compliance and Release of Recordation ("NOC/Release") to allow the Respondent to clear the title to the property by recording the NOC/Release. The NOC/Release usually is sent with a cover letter that explains the purpose of the NOC/Release and recommends that the Respondent record the NOC/Release. (DES does not record the NOC/Release.)

If the Respondent does not comply with the terms of an AOC, DES will consider whether to invoke any stipulated penalty provisions that may have been included or to seek to enforce the AOC in court (*i.e.*, by referring the case to the AGO).

6. Administrative Order

    a. Effect of an Administrative Order

An Administrative Order ("AO") is a *legally enforceable* document issued unilaterally by DES that *requires* the Respondent to act (*e.g.*, to undertake specified corrective actions) or refrain from acting in response to specifically identified violations of environmental laws. An AO usually includes a compliance schedule. If an AO is not appealed, it can be used in a subsequent proceeding, including a proceeding to compel compliance with its terms, as proof that the violations alleged in the AO occurred. As such, the AO must comply with basic concepts of fairness and due process, which require that the Respondent be able to tell exactly (*i.e.*, without guessing) what the "charges" (violations) are and what DES expects to happen to fix them.

Some programs have statutory authority to issue an Imminent Hazard Order ("IHO").[1] An IHO must specifically include a finding that the violation(s) identified in the IHO present(s) an imminent and substantial hazard to human health or the environment. If this finding is made, the IHO becomes effective immediately upon issuance regardless of whether the Respondent files an appeal. Since IHOs are formatted and processed the same as AOs (only more quickly), the following discussion of AOs includes IHOs unless otherwise indicated.

    b. Issuance of an Administrative Order

AOs are more formal than LODs, having a caption, a number, and separate sections containing numbered paragraphs that identify the parties, the factual and legal bases upon which the AO is issued, the conclusions that violations have occurred, and the specific remedial action being required. The AO will also inform the Respondent of the right to appeal the AO and of the time in which any appeal must be filed. For appeals of an AO issued under two or more different statutes that are appealable to different Councils, the AO will specifically identify the correct appeal route for each determination of violation.

The AO will include a statement of other remedies available to DES for the underlying violation(s) and for not complying with the AO itself. If the activity noted in the Statements of Fact and Law also violates (or may violate) a statute which is outside DES's jurisdiction, a

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[1] See, *e.g.*, RSA 146-A:16, III; RSA 147-A:13; RSA 485-A:54, II

sentence usually will be included in the AO that alerts the Respondent that the matter is being referred.

All AOs are sent certified mail, return receipt requested. If the Respondent refuses to sign for the certified mail, the AO will be hand delivered either by DES staff or by law enforcement officials (*e.g.*, local police officer or county sheriff).

DES usually will record an AO whenever a specific parcel of land is affected by the violation(s). Orders issued pursuant to certain statutes implemented by DES can be recorded without charge to DES. A copy of the AO will be sent to the DES Enforcement Coordinator, the DES PIP Office, the AGO, and appropriate municipal officials. For programs that have federal analogs, a copy will be sent to EPA. As appropriate, copies may also be sent to others such as a complainant or consultant who has been working on the project, and may be placed in a licensee's file.

c. Modifications of an Administrative Order

Any modification to an AO, including any extension to the time limits specified for compliance, can only be legally effected through an amendment to the AO. The format and procedures for amending an AO are designed to ensure that the requirements of the AO as amended are clear (unambiguous) and that the amendment is legal and reasonable under the circumstances.

The amendment should identify what is being modified in a way that allows someone who was not privy to the discussion(s) which resulted in the amendment to know how the AO should read as a result of the change. The Amendment thus either must clearly identify the provision(s) being revised and the revision(s) being made, or entirely replace the original provisions with new provisions. The Amendment must be signed by the Commissioner and Division Director. A copy of the Amendment must be sent to each person who got a copy of the original AO. If an AO is being amended as part of a settlement of an appeal, the amendment can be an "Amendment by Consent", as described in section C.5.c.

d. Follow-Up

If the Respondent fully complies with all of the requirements of the AO, DES will issue a Notice of Compliance ("NOC") to the Respondent. If the AO was recorded, DES will issue a Notice of Compliance and Release of Recordation ("NOC/Release") to allow the Respondent to clear the title to the property by recording the NOC/Release. The NOC/Release usually is sent with a cover letter that explains the purpose of the NOC/Release and recommends that the Respondent record the NOC/Release. (DES does not record the NOC/Release.)

If DES receives information subsequent to issuing an AO that conclusively shows either that there was no violation or the person to whom the AO was sent was not the person legally responsible for committing or fixing the violation, DES will issue a "Rescission". If the violation(s) did occur and the named Respondent was the legally-responsible person, an AO will **not** be rescinded even once compliance is achieved (but it will be released).

e. Appeals (Process, Hearings, Settlements)

All appeals must be filed within **30 calendar days** of the date the AO was **issued**. The presumptive date of issuance is the date that appears on the first page of the AO. The 30-day period is counted by starting on the day following the date of issuance and includes the last (30th) day unless that day falls on a weekend or State holiday, in which case the deadline extends to the first business day following the weekend/state holiday. The appeal notice must contain certain information such as the specific name of the party appealing the AO, the specific portions of the AO that the party disagrees with, the specific reason(s) why those portions are unlawful or unreasonable, and the specific relief that the party is asking the Council or Board to provide. Rules addressing content and format of appeals have now been adopted by all DES Councils (Waste Management Council, Water Council, Wetlands Council, and Air Resources Council) and by the Water Well Board. If an appeal is not filed in time or does not contain the required information, the appeal might not be accepted. The DES fact sheet "Appealing an Order of the N.H. Department of Environmental Services" (#NHDES-CO-7) usually is sent with each AO.

Appeals of AOs usually will be received by the paralegal in the DES Legal Unit who is the appeals clerk to the Councils. The Council Appeals Clerk will send a copy of the appeal to appropriate DES staff if the appeal document does not indicate that copies were sent directly. Once an appeal is filed, no party to the appeal (DES or the Respondent or any interveners) can discuss the appeal with the Council unless all parties have received notice that the discussion will occur and have been given an opportunity to participate. (Discussions where all parties are not given notice and opportunity to participate are considered *ex parte* and are prohibited by RSA 541-A:36.)

When an appeal is received, the program that initiated the AO will be assisted either by the DES Enforcement Coordinator or by an attorney from the AGO. DES's initial focus in an appeal usually will be to see if the appeal can be settled without the need for a hearing. The attorney representing the Division will contact the Respondent (or Respondent's attorney) to talk about settling the case. More than one meeting may be necessary, especially if the issues are complicated. Settlement discussions are confidential; if a settlement is not reached, nothing that anyone says (or writes) during the negotiations can be introduced as evidence by another party at the subsequent hearing.

If settlement discussions are not successful or do not seem to be moving very fast, any party can request a prehearing conference. A prehearing conference is a more formal proceeding than a settlement discussion, and is conducted by a member of the Council that will be hearing the appeal. The stated purpose of a prehearing conference usually is to agree on the specific issues that will be presented to the Council and/or to identify witnesses and exhibits and how much time each side will need. Sometimes, the presiding Council member will give some indication of the likely reaction of the full Council to the issues, *etc.*, which can provide enough motivation for DES and the Respondent to reach a settlement. An appeal can be settled at any time prior to the Council actually making a decision on the case (even after the hearing, provided the Council has not yet deliberated and voted).

If an appeal is settled, a settlement agreement that contains the terms of the settlement must be prepared. DES usually will do this, although if the Respondent is represented by legal counsel and DES agrees, the Respondent's attorney often prepares at least the first draft. A

settlement agreement may include a compliance schedule that differs from the deadlines specified in the AO. However, while DES may compromise on <u>when</u> compliance will be achieved (*i.e.*, the compliance schedule dates), DES **does not** (**cannot**) compromise on <u>whether</u> compliance will be achieved.

The settlement agreement also must resolve the appeal that is pending before the Council. This is usually done by the Respondent agreeing to withdraw the appeal upon execution of the settlement agreement.

Also, even though DES does not combine administrative fine notices and administrative orders into one document (because the hearing and appeal processes are different), fines and/or stipulated penalties **can** be included in an AO settlement (because the Respondent is agreeing to pay and waives the hearing and appeal).

If an appeal hearing is held, it will be a full evidentiary hearing before at least a quorum of the Council. At the hearing, DES will testify and present evidence about the investigation that led to the AO being issued for the violation(s) alleged. The hearing may last less than an hour or may continue over several days, depending on the number and complexity of the violations alleged and the number of witnesses and exhibits to be presented. The hearing is recorded and all testimony is given under oath or affirmation.

After the hearing, the Council must review the evidence and come to a decision. This is usually done at the Council meeting following the meeting at which the hearing was held. After the Council reaches a decision (by majority vote), a written decision is prepared and issued. RSA 541 provides that any party (the Respondent(s) or DES) who is dissatisfied with the Council's decision may appeal the decision to the NH Supreme Court. Appeals to the Supreme Court are rare, as they are on issues of law only. That is, except in extremely limited circumstances, an appeal can not be taken from a finding of fact even if the finding appears to be erroneous, if the correct law is properly applied to that finding.

7. <u>Administrative Fine</u>

An administrative fine is an action that seeks to impose a monetary penalty against the Respondent. Administrative fine actions are often initiated with the intent of seeking a settlement of the case that will also resolve any outstanding compliance issues. The Commissioner of DES is authorized to impose administrative fines for violations under most of the statutes implemented by DES. The current statutory authorities for administrative fines are included as **Appendix V-1**. Rules implementing the Commissioner's authority have been in place since 1989, and have been modified as necessary to add or revise schedules of fines and to modify the procedures for seeking administrative fines. The most recent comprehensive readoption of Env-C 601, relating to procedures, was in December 1998. The most recent comprehensive readoption of Env-C 602 - 616, the fine schedules, was in February 2000. In developing administrative fine procedures, the desire to have a streamlined program has been balanced against the need to afford due process to those against whom a fine is sought to be imposed.

a. Initiation of an Administrative Fine Action

In most cases, an administrative fine action is initiated by the issuance of a Notice of Proposed Administrative Fine and Hearing ("NPF/H") or a Field Citation ("FC"). The NPF/H or FC is a notice that an administrative fine (also referred to as an "AF" or just a "fine") is being proposed; it is **not** a notice that a fine has been imposed. Pursuant to the statutory authorities for imposing fines, the Respondent has an opportunity for a hearing before a fine is imposed. In some cases, a program may initially send a proposed administrative fine settlement to the Respondent. That is, instead of sending a NPF/H and then initiating settlement discussions, the program may offer the terms under which the program is willing to settle the case.

The NPF/H, FC, or proposed settlement informs the Respondent that a fine is being proposed, and specifies the factual and legal bases for the violation(s) that are alleged and the amount of the fine(s) being proposed. This is the only enforcement document in which the state party to the action agency is identified as "the Division" instead of "DES". This is because at the NPF/H, FC, or proposed settlement stage, "DES" (*i.e.*, the Commissioner) has not made a decision on the fine; the NPF/H, FC, or proposed settlement only indicates that the Division is seeking a fine.

The NPF/H or FC also informs the Respondent that the Respondent has an opportunity for a hearing on the proposed fine and that the Respondent is obligated by rule to respond to the NPF/H or FC, and specifies the date by which the Respondent must respond. Beyond this, the two forms of notice differ slightly, as discussed below.

The NPF/H will specify the date on which a hearing has been scheduled, and informs the Respondent of how a change in the scheduled hearing date can be requested. The NPF/H also explains how the determination is made to impose a fine (or not) after a hearing, and how the Respondent can attempt to mitigate the amount of a fine imposed after a hearing.

The NPF/H is sent to the Respondent by certified mail, return receipt requested. Copies of the NPF/H will be sent to the DES Enforcement Coordinator, the DES Hearings and Rules Attorney, the DES PIP Office, municipal officials, and others who are known to be interested in the matter. If the Respondent doesn't sign for the certified mail, the NPF/H will be delivered by hand to the Respondent.

An FC is issued in the field at the end of the inspection which results in the field citation being issued. The field inspector fills in a pre-printed FC form with the case-specific information, such as how many of which violations were observed and how much the total fine is, and signs the FC. The FC is also signed (to acknowledge receipt) by the Respondent or Respondent's agent who is present at the inspection. The Respondent (or agent) then gets one of the copies of the FC; the inspector brings the other copies back to the office for filing and distribution. Copies of the FC are given to the Division Director, the DES Enforcement Coordinator, and the Commissioner.

The cover letter sent with a proposed settlement specifies a date by which the Respondent must return the settlement. If the Respondent doesn't accept the proposed settlement and alternate terms can't be worked out, the Division will initiate a formal proceeding by issuing a NPF/H. Since the Division usually is willing to reduce the fine if the case is settled, the Division usually informs the Respondent that the full potential (higher) amount will be sought if the case goes to a hearing.

b. Resolution of an Administrative Fine Action

     i. Proposed Settlement

If the Division initiates a fine case by sending a proposed settlement, the Respondent can accept the terms of the settlement or can discuss alternative terms. If terms are agreed to, the settlement agreement is signed and routed for acceptance by the Commissioner. If terms agreeable to the Respondent and DES can't be reached, the Division will withdraw the proposed settlement and will proceed to issue a NPF/H.

     ii. Field Citations

Under Env-C 608.03, an FC cannot be used to propose an individual fine of more than $100 per violation or a total fine of more than $1,000. If the total fine proposed in the FC exceeds $500, the amount over $500 will be suspended. If the Respondent corrects the violations and pays the $500 fine within 30 days of the date of the FC, payment of the suspended portion will be waived and the file will be closed.

A Respondent who received an FC occasionally will ask to discuss a settlement, although this is rare because the fine amounts are so low and compliance has to be achieved anyway. If the program settles the case, *e.g.*, by accepting a payment schedule or a schedule for compliance that extends beyond the time allowed by the FC, the standard procedures for settlements must be followed.

If a Respondent who received an FC requests a hearing, program staff will coordinate with the DES Legal Unit to schedule the hearing. The DES Legal Unit will send the hearing notice, which will contain the same hearing-related information as a NPF/H (hearing date, how to request a different date, how the determination is made to impose a fine (or not) after a hearing, and how the Respondent can attempt to mitigate the amount of a fine imposed after a hearing). A hearing conducted for a field citation fine is the same as any other fine hearing.

     iii. Standard NPF/H

If a Respondent who has received an NPF/H elects to waive the hearing and pay the proposed fine, the administrative fine file is closed upon receipt of payment.

If DES receives the return receipt from the NPF/H but the Respondent does not respond by returning the Appearance/Waiver form, a hearing can be held anyway pursuant to Env-C 204.09, subject to the Respondent's right to request the hearing to be reopened.

     iv. Standard NPF/H - Settlement

All DES programs are encouraged to discuss a possible settlement of any administrative fine case initiated using an NPF/H. If the Respondent does not contact the program to initiate the discussion, program staff usually will contact the Respondent. Contact should be made well in advance of the scheduled hearing to allow time to come to an agreement and prepare and execute the settlement document. If the parties are discussing a possible settlement but have not concluded the negotiations and agreement by the date of the hearing, either program staff or the

Respondent must request that the hearing be continued or postponed. The request must be in writing and sent to the DES Hearings and Rules Attorney, with a copy to everyone identified on the "cc:" list of the original NPF/H.

Administrative fine settlements range from being a payment schedule for the amount originally sought to including complex compliance schedules with suspensions or waivers of portions of fines based on various contingencies and/or stipulated penalties for failing to meet agreed-to deadlines for remedial actions. The complexity of the settlement depends primarily on whether there are any violations that remain unresolved.

If there are no outstanding compliance issues, the settlement is a payment schedule or an agreement to suspend a portion of the fine contingent on the Respondent undertaking certain beneficial activities (a Supplemental Environmental Project, or SEP) or committing no further violations of applicable requirements for a specified period of time, or a combination thereof. Payment schedules should be reasonable in view of the Respondent's financial resources, but may not extend for more than six months except under unusual circumstances or unless the Respondent agrees to pay interest on the unpaid balance. As the payment schedule gets longer, the amount of resources DES spends to receive and process the payments increases, which reduces the net value of the fine. Also, if the Respondent does not pay interest on the outstanding balance of the fine, a longer payment schedule reduces the current value of the fine.

The conditions of a suspension can be limited to complying for a specified period of time with the requirements of one program, or can include complying with the requirements of any program implemented by DES. The time period specified is typically two years, which usually is long enough to give some level of assurance that the Respondent really is trying to comply and is short enough to not be onerous to monitor.

If a fine has been sought in a case where the violation has not yet been corrected, the settlement agreement can and should be used to establish a compliance schedule. If a portion of the fine is conditionally suspended (*e.g.*, contingent on the deadlines set in the schedule being met), the amount of money that will be paid if all of the deadlines are met must be sufficient to recoup any economic benefit that accrued to the Respondent as a result of the violation. (See Chapter VI for a discussion of recouping economic benefit.)

If it is not appropriate to waive any of the fine originally sought, either because the violations and/or past compliance record of the Respondent are so egregious and/or the amount sought is just adequate to recoup the economic benefit, and the Respondent still is willing to establish a compliance schedule in a settlement agreement, stipulated penalties usually will be considered to motivate compliance with the schedule. (See Chapter VI for a discussion of stipulated penalties.)

v. Hearings

If settlement discussions are not successful or don't occur, a hearing will be held. The purpose of an administrative fine hearing is to create a formal record which will form the basis for determining whether there has been a violation for which the imposition of an administrative fine is authorized, and, if so, what the appropriate amount of the fine is. The fine will be conducted in accordance with Env-C 200, in particular Env-C 204 relative to adjudicatory hearings. These rules incorporate the statutory hearing procedures of RSA 541-A, the NH

Administrative Procedures Act. This hearing is **not** an appeal, since no decision to impose the fine has yet been made. (Remember, the "P" in NPF/H is for <u>Proposed</u>, and the Field Citation is simply an alternate form of proposing that a fine be imposed.)

In most cases, the hearing is a formal oral hearing at which witnesses testify under oath and the record is created by tape recording. If there are unusual circumstances involved and all parties agree, the   hearing   can consist of submission of each party's case in writing, with accompanying affidavits and exhibits. For hearings done on a written record, testimony can be submitted only in the form of a sworn affidavit.

At the hearing, Division staff will present testimony and evidence to prove that the violation(s) occurred and that the fine sought is the appropriate amount. The Respondent will have an opportunity to rebut the Division's evidence and present evidence to support the Respondent's position. The Division bears the burden of proof at this hearing. This means that the Division must show that it is more likely than not that the violation(s) occurred, that this Respondent is the violator, and that the fine sought is the appropriate amount.

The person conducting the administrative fine hearing is referred to as the "presiding officer" or "hearing officer". The hearing officer is **neutral** insofar as the substance of the alleged violations is concerned, and so will have no prior independent knowledge of the circumstances which gave rise to the administrative fine action. The hearing officer is responsible for ensuring that the hearing is conducted in an orderly manner and that the rights of all parties (including the Division) are protected. In most cases, the hearing will be conducted by the DES Hearings and Rules Attorney ("HRA") as the designee of the Commissioner. If the HRA is unavailable, another person will be designated to preside over the hearing.

If the Respondent is an individual, the individual usually must attend the hearing in order to present evidence. If the Respondent is an entity, then an officer, director, or other duly-authorized individual must attend the hearing on behalf of the entity. The Respondent, whether an individual or an entity, may be represented by legal counsel.

The hearing is open to anyone who wishes to attend. However, this does **not** mean that anyone who attends has a right to be heard; only parties and any witness(es) the parties call can testify on the record. Note, though, that if a person who attends the hearing is asked by a party to testify, the testimony will be accepted into the record if it is material, relevant, and not duplicative.

Following the hearing, the hearing officer will evaluate the testimony and evidence presented and make findings of fact to support the hearing officer's recommendation to the Commissioner. In so doing, the hearing officer will be guided by which party has the burden of proof on each issue and whether that party persuaded the hearing officer that the proposition is more likely than not to be true. (The Division must prove that the Respondent violated a statute, rule, permit, or contract and that the violation is one for which a fine can be imposed, and must prove any aggravating factors it believes warrant an increase in the fine. The Respondent has the burden of proving any mitigating factors, such as no history of non-compliance with DES programs, in order to obtain a reduction in the fine imposed.)

In this process, the hearing officer will evaluate the credibility of the witnesses and evidence. The hearing officer can choose to believe all of a witness's testimony, part of the

testimony, or none of the testimony. The hearing officer will base the determination of credibility on the witness's demeanor when testifying, the witness's interest in the outcome, the witness's personal knowledge of the matters about which s/he testified, the consistency of the witness's testimony with that of other witnesses or other evidence, and any other factors which bear on the witness's believability. The strength of the testimony of a single, credible witness can exceed that of many witnesses whose credibility is tainted. Further, the hearing officer does not have to believe testimony *even if* no testimony is offered which is contrary to it.

The hearing officer then prepares a recommendation to the Commissioner as to whether to impose the fine sought by the Division, a lower amount, or no fine at all. The hearing officer can also recommend a payment schedule and/or suspension of all or a portion of the fine based on certain conditions being met. The hearing officer forwards the recommendation and the complete record to the Commissioner. The Commissioner may accept the recommendation or make specific findings to support a different fine amount. The hearing officer then converts the approved/modified recommendation to a Notice of Decision ("NOD"). The NOD is sent to the Respondent by certified mail, return receipt requested. Copies of the NOD are sent to everyone who received a copy of the original NPF/H or FC.

DES has developed a protocol for handling administrative fine cases that ensures that *ex parte* communications do not occur during the process of developing and issuing the NOD. A copy of this protocol is included in **Appendix V-2**.

c. Motion for Reconsideration

Administrative fine decisions are subject to the provisions of RSA 541 for purposes of appeal. Under RSA 541:3, "any party to the action or proceeding ... or any person directly affected thereby, may apply for a rehearing ... " The request for rehearing, or motion for reconsideration ("MFR"), must be filed within 30 days of the date the NOD is issued. The MFR must be in writing and must *specifically* identify all of the reason(s) why the party believes the Commissioner's decision was unlawful or unreasonable (ref. RSA 541:3 and 4).

Under RSA 541:5, the Commissioner must decide within 10 days whether to reconsider the decision. If a decision is reconsidered, the hearing officer sets a time limit for the other party to respond to the MFR if desired. After the response deadline, the hearing officer reviews the information submitted and makes a recommendation to the Commissioner as to whether another hearing should be held or, if not, whether the original decision should be affirmed, overturned, or modified. In most cases, a second hearing is not held; rather, the Commissioner makes a decision based on the written record. Once a decision on the MFR is issued, any party that is still dissatisfied with the decision has 30 days in which to appeal to the NH Supreme Court.

d. Follow-up

If a fine is imposed, the decision that is issued will specify the time by which the payment(s) must be made. If a fine is appealed, payment will be suspended pending the outcome of the appeal. If the fine is upheld on appeal, the decision usually will specify a (new) time by which the payment(s) must be made, since the original date(s) usually will have passed.

If the Respondent does not make payment by the deadline, the DES Legal Unit will send a letter to remind the Respondent of the decision and to request payment. If payment is not

received, a second letter is sent, which is slightly less friendly than the first. If payment is still not received, a third (final) letter is sent, demanding payment and informing the Respondent that a collection action will be initiated unless payment is received by a specified date. Most fines are less than $5,000 and so can be collected by the DES Legal Unit via a small claims action in the Concord District Court. Larger fines are referred to the AGO for collection in Superior Court.

If a Respondent does not comply with the terms of a settlement agreement, DES will consider whether to invoke any stipulated penalty provisions that may have been included or to seek compliance via a judicial proceeding (*i.e.*, refer the case to the AGO).

8. Referral to the Attorney General's Office

As noted in Chapter I, most environmental laws allow the AGO to seek judicial relief in the form of civil penalties, injunctive relief, and criminal penalties. If DES believes a judicial remedy is more appropriate than an administrative remedy, DES usually will refer the case to the AGO. Referrals are frequently made in cases where the violation is causing substantial, on-going harm or caused actual serious harm or posed a substantial threat of serious harm to public health or the environment; the violation rose to the level of a criminal offense or otherwise was willful or deliberate; additional harm is likely to occur within a relatively short period of time if nothing is done, and there is reason to believe that the Respondent will not cooperate or has a history of non-compliance with environmental laws; the significant economic benefit realized by the Respondent from the violation is more than the total administrative fine that could be imposed; a civil penalty is otherwise appropriate and the Respondent is not willing to enter into an administrative order by consent; or the Respondent has failed to comply despite administrative efforts by DES. If DES refers a case that falls into one of these categories to the AGO, DES almost always will ask the AGO to seek monetary penalties in addition to whatever other relief is appropriate. DES also refers clean-up cost recovery actions to the AGO (ref. C.9, below).

a. Effect of a Referral for Enforcement

When DES refers a case to the AGO for judicial action, one of the attorneys from that office will be assigned to work on the case. DES will continue to work with the attorney throughout the course of the case. Final decisions (including decisions on settlement terms) generally will result from discussions that lead to a consensus with the AGO and DES. In addition to referring a case for civil action, DES refers matters to AGO for criminal investigation and for review of AOCs that include civil penalties.

b. Process

The AGO may initially seek to settle a case referred by DES for civil judicial action. Usually, the AGO will send a letter outlining proposed settlement terms and setting a deadline for response. If the draft petition is available, a copy will often be sent with the letter. Offers of settlement are typically met with counter-offers, and so negotiations ensue. If the discussions are successful, a consent agreement will be prepared to file in court with the petition. In order to ensure that the negotiations do not stall out, the AGO will set a date for filing the petition with or without an accompanying consent agreement.

During this process (and throughout the ensuing process, if a case is not settled), all parties must remember that the case has been referred, *i.e.*, that DES is no longer handling the case. This means that DES staff (including program staff, supervisors, Bureau Administrators, and Division Directors) should refrain from discussing the case with the Respondent or the Respondent's consultant or attorney. Not talking to the Respondent or the consultant sometimes can be difficult, especially if there is a long-standing relationship between them and DES staff and/or there are on-going projects unrelated to the case that was referred. DES staff who are contacted by the Respondent or Respondent's consultant about matters not related to the pending action can proceed as normal. However, staff must **not** discuss the referred case (directly or indirectly) with the Respondent or the Respondent's consultant <u>unless</u> the assigned AGO attorney knows in advance that the discussion will occur and has agreed to the scope of the discussion (*e.g.*, technical details about restoration or other remedial measures).

While it may be difficult to avoid talking to the Respondent or Respondent's consultant, DES staff should never have a problem **not** talking to the Respondent's attorney. Attorneys operate under rules of professional conduct that prohibit direct contact with a party known to be represented by counsel without that counsel's knowledge and consent. Since DES is represented by counsel in any case that has been referred, this prohibition applies. DES staff who are contacted directly by the Respondent's attorney **must decline** to discuss the case <u>unless</u> staff has already heard from the AGO attorney that the call has been discussed <u>and</u> <u>approved</u>. The AGO attorney should also indicate what topics can be covered by the call, so if the Respondent's attorney starts to stray from the agreed-to topics, the discussion can be terminated.

If a petition is filed without a consent agreement, both parties will begin to prepare for trial by undertaking discovery, including depositions of the other party's witnesses and interrogatories. Settlement talks often continue or resume as discovery proceeds, as both sides reassess the strength of their respective cases in light of the information provided by the opposing party. If the case is settled through negotiation, the AGO will forward a copy of the draft settlement (usually in the form of a consent decree) to DES for review. Once everything is finalized, the AGO will send a copy of the final petition and signed consent decree to the DES. If the settlement includes a compliance schedule or other such deadlines, DES will be responsible for monitoring compliance with the schedule. The AGO will collect any payments that are due. If the settlement includes a Supplemental Environmental Project ("SEP") other than a straight cash payment, in most cases DES will be responsible for monitoring implementation of the SEP.

If the case goes to trial, DES staff will be called upon to testify. If the court rules in the State's favor and the Respondent doesn't appeal, the case is done and DES will be responsible for monitoring the Respondent's compliance with the court order (if such is required). If the court only imposes monetary penalties, the AGO will collect the payments. If the court rules in favor of the Respondent, DES and the AGO will discuss whether to appeal the decision.

9.   <u>Cost Recovery Action</u>

Certain statutes implemented by DES authorize DES to perform remedial actions, including associated site investigations, and to recover the costs for the actions from the responsible parties. A list of statutes conferring such authority is included as **Appendix V-3**. DES usually does not perform the remedial activities directly; instead, DES contracts with an environmental company to do the work.

Before undertaking remedial activities, DES notifies the responsible parties of their obligation to do the work and offers a reasonable time for the responsible parties to confirm their intent to do the work. Depending on the circumstances, DES may ask the responsible parties to enter into an AOC that establishes the schedule for the work. If the responsible parties do not respond to the notice or do not adhere to the agreed-to schedule, DES will send a notice informing the responsible parties that if work is not initiated by a date that is specified in the letter, DES will undertake the necessary actions and will bill the responsible parties for all recoverable costs.

If DES undertakes the activities (*i.e.*, hires the state contractor to do the work), DES will send a statement of the total recoverable costs to the responsible parties when the work is completed. If the project is expected to last for a longer period of time (*e.g.*, more than six months), DES will send periodic statements of the amounts due to date. The statements will request the responsible parties to remit payment.

If the responsible parties do not remit payment and the statute allows DES to claim a lien against the property to secure payment, DES will file a lien in the registry of deeds for the county in which the property is located. Depending on the statute under which the lien is filed, the lien may take precedence over previously-filed liens. If the responsible parties remit payment, DES will discharge the lien.

If the responsible parties do not remit payment, DES will refer the case to the AGO for judicial action. If a case is referred for cost recovery, DES may also request the AGO to seek civil penalties, either for the underlying violations or for the failure to pay as required. DES is more likely to seek penalties in addition to cost recovery if the responsible parties did not have a compelling reason for not undertaking the work originally and for not paying recoverable costs when originally requested by DES.

APPENDIX H -- NH DES Quality Assurance System
Implementation Guidance for Program Managers

New Hampshire Department of Environmental Services

Quality Assurance System

Implementation Guidance
For
Program Managers

November 2001

This document is intended to help program managers follow and apply the QA/QC principles
outlined in the DES Quality Management Plan.   Members of the QA Team, who are identified on the
DES Intranet under "Quality Assurance at DES," can help address any challenges or concerns raised
during the implementation process.

Table of Contents

Introduction to the DES Quality Assurance System

The mission of the New Hampshire Department of Environmental Services (DES) is to protect, maintain and enhance environmental quality and public health in New Hampshire. In carrying out its mission, DES relies upon many different types of data that enable it to better evaluate and measure existing environmental conditions, to identify and understand areas of concern, to assign responsibility for these areas, and to promote and enhance credible communication on environmental issues to a wide variety of audiences.

The data DES uses must be credible, and the quality of that data must be appropriate for its intended uses. The Department, through its quality assurance system is moving towards a more systematic approach to the management of data and overall quality assurance issues across DES.

To accomplish this, every DES staff member must understand how his or her activities affect data quality issues, and all staff must know what they have to do to help produce quality data. This is best accomplished by having a central documented plan, which is periodically reviewed and updated so that the overall data quality system continuously improves.

Each bureau and/or unit (hereinafter "program") within DES is responsible for assuring that data gathered by that program is of appropriate quality for its uses. Historically, DES programs have had success addressing their data quality needs. However, this was achieved largely through undocumented procedures, on-the-job training, and addressing system needs and deficiencies in an informal manner. While this approach may have served DES's past needs, the lack of documentation causes problems in assuring credibility for data underlying DES decisions and policies, and in institutionalizing a significant, but undocumented, knowledge base. To address these issues, this DES Quality Management Plan (QMP) documents the policies and procedures that ensure the appropriate quality of the environmental data used by the Department.

The DES Quality Assurance (QA) system consists of the people, functions, tools and procedures used to improve and assure the quality of data generated for data users and decision-makers. The DES quality system encompasses, and is applicable to, all aspects of its environmental data operations[2].

The QMP[3] is the main guidance document at DES to ensure that environmental programs (whether they are located within DES, or are working with DES programs under a variety of arrangements including those on a contractual or volunteer basis), produce the type and quality of results needed and expected, in particular, that all environmental data collected, generated and used will be scientifically valid; of known precision and accuracy, completeness, representativeness, and comparability; and legally defensible. Because DES interacts with many federal, state, and local government agencies, environmental groups, universities, volunteer groups, and many other organizations in order to maximize efforts to protect and enhance public health and the environment in the state, the QMP also includes guidance on assuring that data generated by these outside parties meet DES's data needs.

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[2] Refer to QMP Chapters 2.1.2 through 2.1.5
[2] The full DES QMP can be found at http://intranet/qa/plan.pdf

Implementation of the DES QMP is the responsibility of staff throughout the Department, with the guidance and support of the DES Senior Leadership Team, the QA Manager and QA Team, as well as program managers.

The DES QA System is intended to ensure that program managers generate, review and transmit data that has the appropriate quality for the intended uses. It follows established management principles of "Plan-Do-Check-React" or Total Quality Management, as taught by Deming and many others after him.

In the most basic of terms: 1) You plan what you're going to do; 2) You do it; 3) You check to make sure it was done right; and 4) You react to change the system to address problems and to improve the system. The process can be represented as follows:

PLAN

REACT   IMPROVE !   DO

CHECK
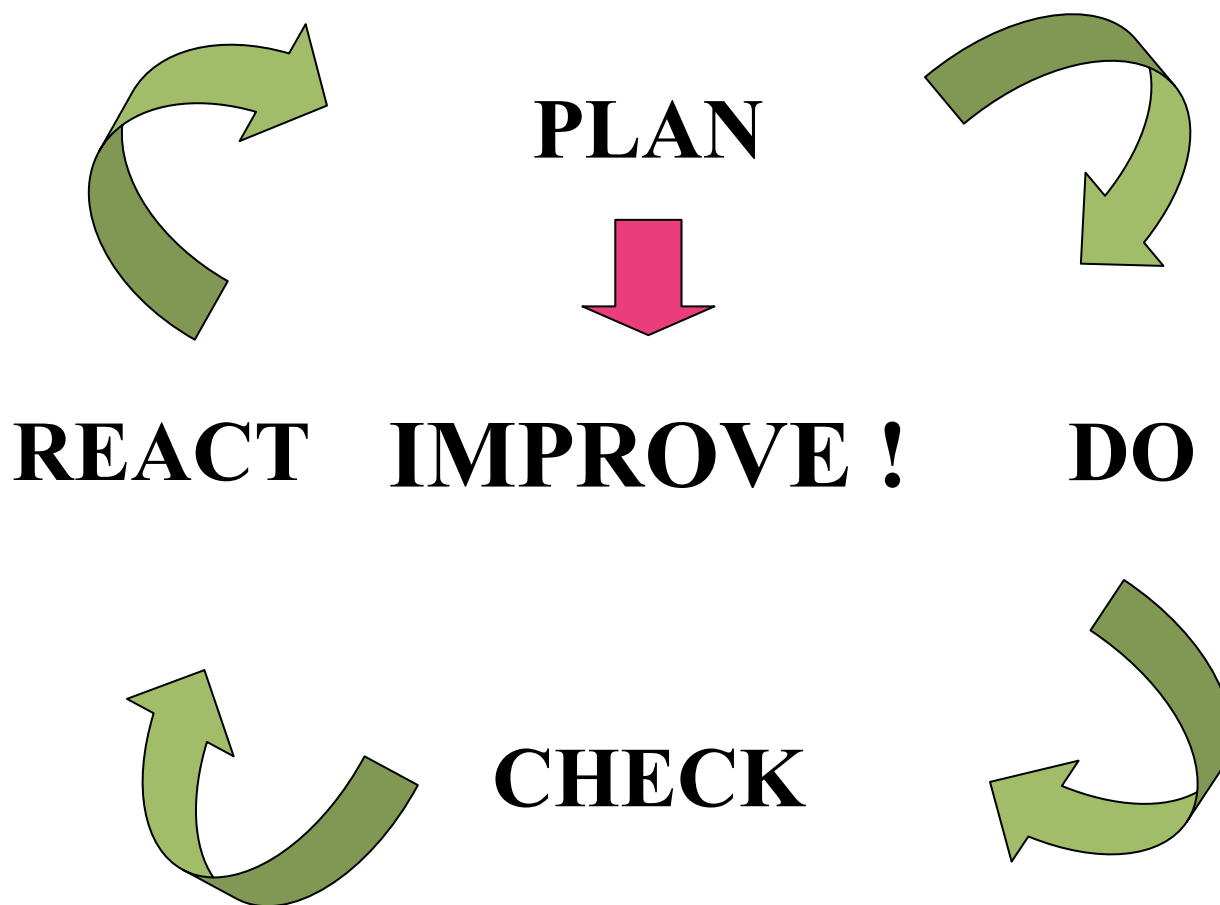
Definitions
Excerpted from DES Quality Management Plan

Data Quality Objective

Qualitative and quantitative statements that clarify study objectives, define the appropriate type, users, consumers and functional efficacy of data that will be used as the basis for establishing the quantity and quality of data needed to support decision-makers.

Document

Any written, recorded information that is subject to change over time. Procedures, plans, policies, and records are documents. Documents may be controlled. See Records.

Environmental Conditions

The description of a physical medium (e.g., air, water, soil, sediment) or biological system expressed in terms of its physical, chemical, radiological, or biological characteristics.

Environmental Data

Any measurements or information that describe environmental processes, location, or conditions; ecological or health effects and consequences; or the performance of environmental technology.

Program

A functional unit of the New Hampshire Department of Environmental Services (DES) conducting a defined program. This administrative function will often be found at the Bureau level, but this varies across DES. An example would be the Limnology Program within the Watershed Management Bureau of the Water Division.

Program Manager

The person responsible for conducting a specific DES program; this program management function is vested in people at different administrative levels within DES.

Project Manager

The person that has direct knowledge and/or responsibility at the project or site-specific level.

Records

A completed document that provides objective evidence of an item or process. Records may include photographs, drawings, magnetic tape, or other data recording media. See documents.

Standard Operating Procedures (SOPs)

A written document that details the method for an operation, analysis, or action with thoroughly prescribed techniques and steps, and that is officially approved as the method of performing certain routine or repetitive tasks.

The DES QA System – the Condensed Version

This *QMP Implementation Guidance for Program Managers* is intended to help program managers and staff more clearly understand what it is they need to do. The first step is to determine how, or if, you handle "environmental data."

Environmental data is defined as *"Any measurements or information that describe environmental processes, location, or conditions; ecological or health effects and consequences; or the performance of environmental technology."*

Therefore, if your program is involved with or conducts any of the following tasks, you are, or will be, covered under the DES QA System umbrella:

- Take samples in the field
- Conduct testing in a laboratory
- Describe conditions in the field

- Conduct testing in the field
- Reviewing, analyzing and/or reporting on data generated by others.
- Communicate the results of sampling and/or testing

These activities can be considered together as "data activities": Gathering data or samples; conducting tests; checking work done by others; and communicating the results, including the limitations of the results.

Documentation, record-keeping, and training to ensure proper competency, are the key support steps. All of your program's environmental data issues must be documented, although there is wide latitude in how they are documented.

There is an important exception to that last statement. Programs that use EPA funds for their environmental data activities must produce a *Quality Assurance Project Plan (QAPP)* per EPA specifications. An EPA-approved QAPP will fulfill the requirements of the DES QA System, with a few minor exceptions, notably, the need for documenting a record-retention policy for the program in question.

The steps of "Plan, Do, Check, React" in the context of the DES QA System will generally follow these patterns:

Plan:

The first planning step is to determine what data activities your program undertakes. Document the results of this determination and save the document with other program-administration materials that you have to keep.

The reason for the data gathering is the central issue. You must know:

- Why do you need this data?
- What decisions may be made using this data?
- Who will use this data – who are the customers/audience?
- What legal requirements are being met with this data?

This bulleted list outlines a concept called *Data Quality Objectives*. The idea is to tailor the level of data you need to the uses of that data. If there is no use for the data, perhaps you can focus your efforts elsewhere.

The next step is to ensure that each of your data activities is described in a written guidance, whether you generated this yourself or it is something published elsewhere. This written guidance must be made available to relevant staff as part of a training process, and the training must be recorded.

Do:

This is the easy part. Do the work that you ordinarily do, following your own procedures. Make sure that the data gathered is properly recorded.

Field conditions may require you to vary from the established procedures. Make sure that these variances and the reasons for them are recorded. You will need that information in the Check and React steps of the process.

Check:

This is where you begin to *manage* the process. You must explicitly check, at least annually, whether the work went as expected, whether your procedures still meet your needs, and where improvements can be made. The checking must address the *root cause* of deficiencies, wherever this is possible, so that your procedures can be improved. Most importantly, the checking must be documented. A form of some sort can be very useful for this. Using a form helps ensures that you cover all the points that need to be covered, and the form itself can be used to record the results.

This checking is referred to in the world of management science as "auditing". The DES QA Team has conducted some audits of DES programs to assess their quality systems, and we've attached the checklist we used for those audits. This is presented as an example only: if you see ways to improve it for your program's use, you should feel free to do so. Recording the deficiencies you find is especially important.

It's important to understand that this auditing is not to find fault with individuals. It is to find how you and your people can do their job better by identifying areas for improvement.

React:

This is entirely a *management* function. You review the results of the checking and address deficiencies. Any deficiencies that haven't already been addressed must be weighed as to their importance and balanced against the resources you have available so that you can decide what improvements are possible and/or necessary. This step is very important. This makes the system an ongoing *system* and not just a one-time project. Please remember that no matter how well you do, improvements are always possible.

This review-and-respond (i.e. "React") process must be documented. Corrective actions you take to address deficiencies must be recorded, so that you can check later to see if they worked.

Documents and Records

Throughout the DES QA System, you are asked to record or document events, decisions, or procedures. Absent other requirements, we intend that this to mean written records, kept as simple as possible. A memo to file will often be sufficient. The important thing is to write down your policies, procedures and the results of checking so that the information can be retrieved later.

Some definitions:

Document: Something written or otherwise recorded which is subject to revision over time. Procedures, policies, guidance manuals (like this one), are documents. Compare with *records*.

Controlled Document: A controlled document is revised in a controlled manner. Revisions are reviewed and approved by management personnel. Only a single (usually the latest) version of a controlled document is in use at any given time. Obsolete versions of controlled documents are often discarded after archiving one copy for reference.

Record: Something written or otherwise recorded that is *not* subject to revision over time. Test results, field notes, and photographs are all records. Records may be discarded after a set period of time.
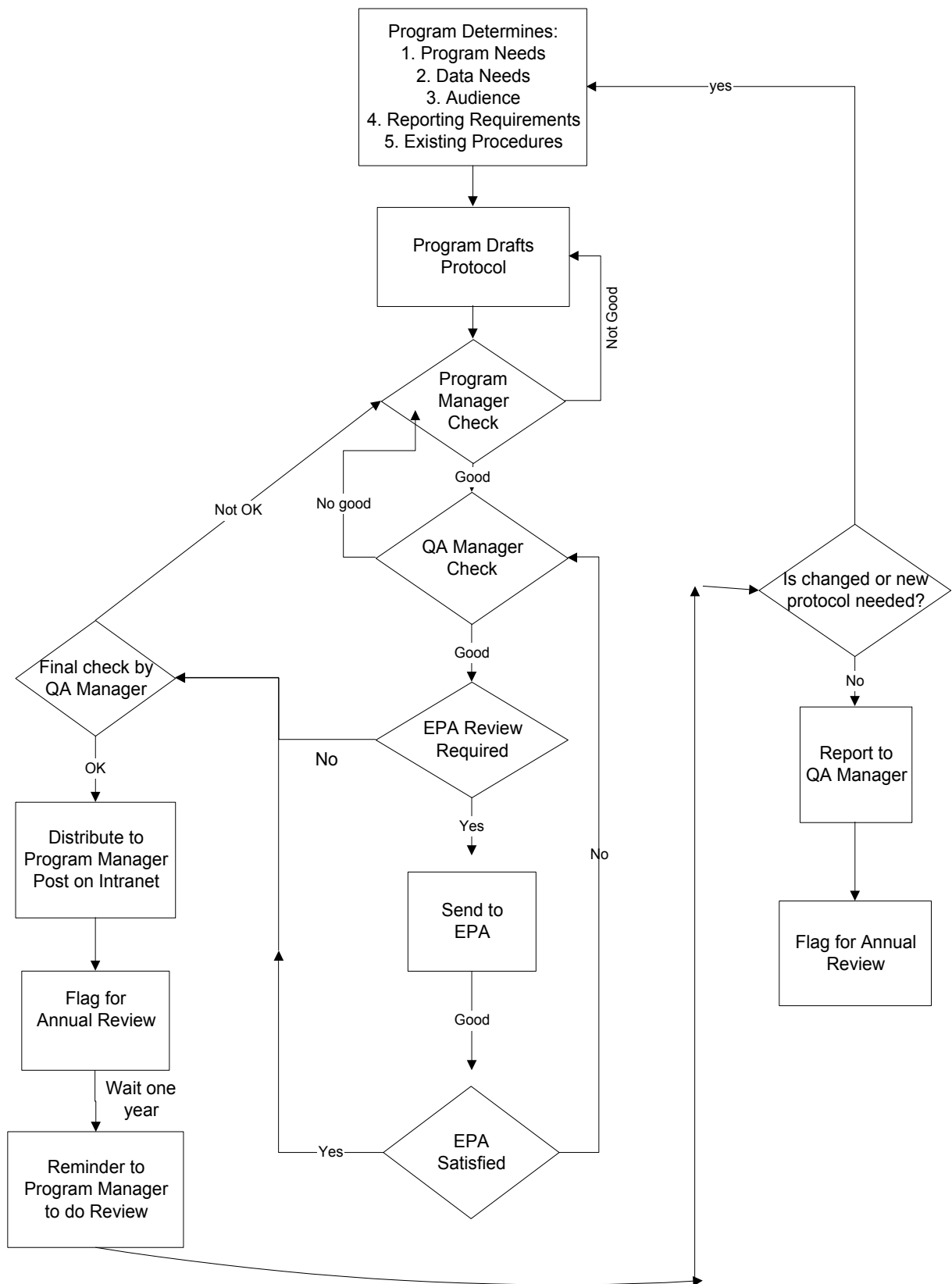
Most procedures used in the DES QA System are documented, that is, they are documents that are developed, reviewed, approved, periodically checked, and revised as necessary.

If the DES program developing the procedure is funded by EPA, then EPA requirements apply and EPA review is usually necessary. In general, compliance with the relevant EPA requirements will satisfy the requirements of the DES QA System. Most often, meeting the EPA requirements will involve producing a *Quality Assurance Project Plan* (QAPP). A QAPP can be done for a complete program or for an individual project.

A program-level document can be more difficult to develop since it will have to cover more kinds of work and allow for more contingencies. However, there would be less QA planning work required for individual projects when a program-level document is used. In this case, for individual projects, documentation is only needed for items that are specific to the project – in general, physical location, and any special data needs that the project itself poses.

The process of document development in the DES QA System is graphically described in the figure on the next page:

Program Determines:
1. Program Needs
2. Data Needs
3. Audience
4. Reporting Requirements
5. Existing Procedures

Program Drafts
Protocol

Program
Manager
Check

Not Good

yes

Good

Not OK

No good

QA Manager
Check

Is changed or new
protocol needed?

Final check by
QA Manager

Good

No

EPA Review
Required

OK

Distribute to
Program Manager
Post on Intranet

No

Yes

Report to
QA Manager

Send to
EPA

Flag for
Annual Review

Good

Flag for Annual
Review

Wait one
year

Reminder to
Program Manager
to do Review

Yes

EPA
Satisfied

No

DES QA System Checklists

The following pages include worksheets/checklists that program managers can use to help them better understand the various elements of the QMP and to establish whether they are in compliance with different aspects of the DES QA System. Utilizing the completed worksheets/checklist as records can serve as documentation that your program has complied at that time.

The first checklist is to determine if your program has requirements under EPA's data quality system to fulfill. The rest are mainly intended for programs not covered under EPA's system, but they may be useful to the EPA programs as well.

The checklists (apart from the first one) are specific to individual topics within the DES QA System. Each of them refers to a chapter or section of the DES Quality Management Plan. You should only use the checklists that apply to you.

While some pages only require a check to ensure compliance, others will ask whether documentation exists, or is applicable, to a manager's programmatic responsibilities. If you have questions, you should refer to the relevant chapter, or contact the DES QA Manager or a member of the DES QA Team.

To QAPP Or Not To QAPP

Applicability	Quality Assurance Element	Initials
Y N N/A	Does your program receive EPA funds to carry out work to obtain, use, or report information pertaining to environmental processes and conditions? If the answer is YES, you will have to prepare a *Quality Assurance Project Plan* (QAPP) per EPA requirements. See these documents for information on composing a QAPP, or related document: *USEPA Region 1 - New England Compendium of Quality Assurance Project Plan Requirements and Guidance*, October 1999, Final, or later edition, and/or *USEPA Volunteer Monitor's Guide to Quality Assurance Project Plans*, EPA 841-B-96-003, September 1996, or later edition. There is also a document *USEPA Requirements for Quality Assurance Project Plans, QA/R-5,* March 2001, or later edition, but as of 2001, Region 1 has been using the *Compendium* referenced above in lieu of the QA/R5 document. If the answer is NO, and your program uses state funds to carry out work to obtain, use, or report information pertaining to environmental processes and conditions, you should proceed through this Implementation Guidance. The rest of the checklists in this DES Implementation Guidance are intended for the non-EPA funded programs, but the EPA-funded programs may find them useful. If the answer is N/A, i.e., your program does not carry out work to obtain, use, or report information pertaining to environmental processes and conditions, you are not covered under the DES QA System, and you're done.	

Chapter 4 - Personnel Qualification and Training Guidance

Applicability	Quality Assurance Element	Initials
Y N N/A	Do you assure that your DES staff and volunteers get the necessary and appropriate training to prior to their carrying out duties that might have an adverse effect on meeting quality assurance goals and objectives?	
Y N N/A	Do you maintain a file of staff and volunteer training records?	
Y N N/A	Where are these files physically located? Are they accessible?	
Y N N/A	Have you forwarded all employee-training records to DES Human Resources in a timely manner? How often is this done? Volunteer training records stay with the overseeing program.	
Y N N/A	Do you complete required annual staff performance appraisals as required?	
Y N N/A	Have you built in appropriate quality assurance-related evaluation criteria?	
Y N N/A	Have you developed a procedure to evaluate the performance of volunteers aiding in the collection, transport, and interpretation of data?	
Y N N/A	Have you updated the Supplemental Job Descriptions of all relevant staff to accurately reflect their quality assurance-related duties?	

*Administration of activities pertaining to staff qualifications and proficiencies of state agency employees are dictated by the New Hampshire Code of Administrative Rules of the Division of Personnel, Chapters Per 100 through 1500, adopted April 21, 1998. These fall under the statutory authority of RSA 21- I:43, II. Supplementing these rules are three Technical Assistance Manuals describing procedures that are followed pertaining to certain aspects of personnel management. These are *Technical Assistance Manual Chapter I – Classification;* Technical *Assistance Manual Chapter II – Recruitment and Certification; and Technical Assistance Manual Chapter III – Examinations.* The Division of Personnel, located at 25 Capitol Street in Concord, NH, holds copies of all these documents

Chapter 5 - Procurement of Equipment Supplies, Services
&
Chapter 7 - Computer Hardware/Software Guidance

Applicability	Quality Assurance Element	Initials
Y N N/A	Do you and your staff follow the rules and regulations in place governing the procurement of supplies and services: * 40 CFR Part 33-Procurement Under Assistance Agreements; ** RSA 21-I:22-Procurement of Engineering Services; and *** Part Adm. 311.07, N.H. Code of Administrative Rules-Service Contracts? (See below)	
Y N N/A	When procuring supplies, equipment, and/or services (particularly those that have a quality assurance component), do you effectively research and communicate your quality assurance goals and objectives (needs) to vendors?	
Y N N/A	When procuring computer hardware and software, do you communicate your quality assurance needs to appropriate DES IRMU staff?	
Y N N/A	Do you work closely with DES IRMU and EPA staff regarding quality assurance aspects maintaining, supporting, and interfacing with EPA and other related data systems and monitoring networks?	
Y N N/A	When working with DES IRMU staff on the custom development of in-house software applications and databases, have quality assurance-related elements/components been satisfactorily addressed?	
Y N N/A	When procuring more costly quality assurance-related goods and services, do you clearly articulate quality assurance needs and specifications in the appropriate standard state contract exhibits "A" and "B"?	
Y N N/A	Upon receipt of supplies and equipment, or work products under contract, do you quickly inspect and evaluate them to determine if all quality assurance-related needs have been met in accordance with specifications.	

	Do you have procedures in place to confirm manufacturer's performance claims as they relate to quality assurance needs?	
Y N N/A		

* 40 CFR Part 33 outlines the general federal regulations for procuring all types of services and material. State laws and regulations provide requirements that are more specific.

** RSA 21-I:22 deals specifically with the procurement of engineering services. In summary, this process involves issuing a request for proposal (RFP), rating each firm that responds (using any necessary quality-based criteria), selecting a short list of qualified firms, evaluating these potential contractors via project presentations, and conducting final negotiations with the highest-ranked firm. In this manner, DES ensures that professional services will be provided with appropriate quality, and at a reasonable cost.

*** Part Adm. 311.07 outlines the process for obtaining approval of service contracts through the N.H. Department of Administrative Services and the N.H. Governor & Council. See Appendix F of the DES QMP for a copy of a standard State Contract with terms/conditions and sample exhibits included.

Chapter 6 - Documents and Records Guidance

Applicability	Quality Assurance Element	Initials
Y N N/A	Is there a documented retention schedule in place for the data collected under your supervision? This response may now serve as your official schedule documentation. Remember that different data sets may have different schedules, i.e.—perpetual, 6 months, 18 months, etc. Please be as specific as possible.	
Y N N/A	Is a copy of data regarded as "highly valuable" kept in a separate building?	
Y N N/A	With regard to your record-keeping system, do records clearly indicate the date of field observations, sample collector, sample preparation, equipment calibration and testing, and other related activities?	
Y N N/A	Do records include the identity of personnel involved in making observations, collecting field data, sampling, preparation, calibration, or testing?	
Y N N/A	Does the record-keeping system facilitate the retrieval of all working files and archived records?	
Y N N/A	Are all documentation entries signed or initialed by responsible staff? Is the purpose for the signature or initials clearly indicated in the records, (i.e., "sampled by", "prepared by", or "reviewed by")?	
Y N N/A	Are all data sets, except those that are generated by automated data collection systems, recorded directly, promptly, and legibly in permanent ink?	
Y N N/A	Are all record-keeping mistakes corrected by the use of a single line through the error accompanied by initials and the date the correction was made?	
Y N N/A	Are procedures implemented for maintaining the security of data, including the prevention of unauthorized access to, and unauthorized amendment of, computer records?	

Y N N/A	Is access to archived information documented with an access log?	
Y N N/A	Are staff distribution lists documented and maintained?	
Y N N/A	Are documents posted on the Intranet the most updated version(s)?	
Y N N/A	Are all controlled documents marked with a revision date, using a footer at the bottom of each page in the document?	

Chapters 8.1 & 8.2 - Project Planning and Implementation

Applicability	Quality Assurance Element	Initials
Y N N/A	Has an individual project manager been identified and involved in the project? Have all customers for the data and all suppliers of the data been identified? The program manager is responsible for this key step in the process.	
Y N N/A	Have the project goals, objectives, and questions/issues to be addressed been communicated in writing to the parties identified in Step 1? The project manager is responsible for this step; the program manager reviews and approves it.	
Y N N/A	Identify the project schedule, required resources (including budget), milestones, and any other applicable requirements (e.g., regulatory and contractual requirements). The project manager prepares this for the program manager's approval.	
Y N N/A	Identify the type and quantity of data needed and how the data will be used to support the project's objectives and communicate this to relevant parties. This is referred to as establishing the "Data Quality Objectives." (DQOs) See the guidance for Sec. 8.3 for further information on establishing DQOs. This is the program manager's responsibility, but should be a collaborative process among parties identified in Step 1. This is not to presuppose what the data will show but rather to ensure that the questions that need to be answered can be answered with the data to be gathered.	
Y N N/A	Identify the performance criteria for measuring data quality, including any statistical methods proposed, and ensure that relevant parties understand the criteria. This is the program manager's responsibility, but should be a collaborative process among parties identified in Step 1.	
Y N N/A	Identify the QA/QC activities necessary to assess the quality performance criteria (*e.g.,* QC samples for both the field and laboratory, audits, technical assessments, performance evaluations, etc.) and ensure that relevant parties understand them. This is the project manager's responsibility, although he/she should consult with the laboratory or other parties as needed.	

Y N N/A	Determine how, when, and where the data will be obtained (including existing data) and identify any constraints on data collection, and document these in writing. The use of existing data is encouraged, provided its quality is known and appropriate for the project; new data should be used to fill gaps in existing data or to determine if the situation described by the existing data has changed. When new data is to be generated, the sampling and analysis procedures must be documented. Design of a sampling and analysis program must explicitly include how it is anticipated that the program will meet the DQOs. The project manager is usually responsible for this, with input from the program manager as appropriate.	
Y N N/A	Consider whether it is appropriate to evaluate and qualify data from non-DES sources, especially data gathered or analyzed by contractors, volunteers or other organizations such as universities or other research organizations. The project and program managers share this responsibility and should document their decisions.	

Chapter 8.3 - Data Quality Objectives Guidance

Reminder: Data Quality Objectives (DQOs) are defined as "Qualitative and quantitative statements that clarify study objectives, define the appropriate type, users, consumers and functional efficacy of data that will be used as the basis for establishing the quantity and quality of data needed to support decision-makers." The DQO concept is a cornerstone of the DES QA system. You have to consider what you intend to do with data to determine how much of what kind & quality of data you need.

Applicability	*Quality Assurance Element*	*Initials*
Y N N/A	In order to determine DQOs, program managers must consider and document decisions regarding the following: 1) What decisions will be made using this data? 2) What is to be communicated by using this data? 3) Will a prospective decision remain the same regardless of what the data shows? 4) If there is nothing to be communicated or decided by this data, is it n necessary to gather the particular data? This is not to presuppose what the data will show but rather to ensure that the questions that need to be answered can be answered with the data to be gathered.	
Y N N/A	DQO's should be discussed with program staff, participating organizations, and laboratory staff so that methods and detection levels can be agreed upon prior to sampling. The laboratory should also be included in any discussion of time frame for sampling and numbers of samples so that laboratory capacity will be available to handle the influx of samples from a large project. These steps are imperative to assure the reliability of the data.	

Chapter 8.4 - Sampling Guidance

Applicability	Quality Assurance Element	Initials
Y N N/A	Are your sampling activities defined, controlled, verified, and documented to the extent required? Written sampling procedures must be followed in all instances. Wherever feasible, sampling procedures written by others, such as *Standard Methods for the Examination of Water and Wastewater*, or various USEPA guidance documents, should be included or referenced in the procedures. Where sampling procedures written by others are not available, the program manager must ensure that a program-specific procedure is produced and made available to staff.	
Y N N/A	Are there enforcement concerns? If so, documentation and adherence to procedures becomes even more important. See Appendix E for DES's *Assurance and Response Policy (CARP), Chapter IV - (*http://www.des.nh.gov/legal/carp/carp-ch-4.pdf*)*.	
Y N N/A	Have sampling personnel been trained in the use of the equipment? Have the training records been added to each employee's respective file in the DES Human Resources Office?	
Y N N/A	Have you considered how the sampling will meet the data quality objectives (DQOs)? See the checklist for Chapter 8.3.	
Y N N/A	If the location is being sampled for the first time, or if samples will be taken at the same location again, be certain to record the location and mark it in the field as necessary. Consider the feasibility of utilizing a GPS unit to identify the sampling location.	
Y N N/A	How the samples will be transported to the testing or examination location must be established. If other agencies or parties will be taking split samples, appropriate arrangements must be made. DES will give these other parties full cooperation.	
Y N N/A	If people living near the sampling location, or local authorities, are interested in the sampling effort, the project manager must make appropriate arrangements for communications with any affected parties and the public. All such communications must be noted in the log or field book. All DES personnel must be aware that they work for the people of New Hampshire and must be informative and polite.	

Y N N/A	If non-DES parties are sampling, the project managers must ensure that the other parties are using appropriate written sampling procedures. This may include review and approval of the other party's procedure.	
Y N N/A	The following issues must be addressed by the sampling procedures, together with any required Health and Safety Plan: choice of sampling equipment; decontaminating or discarding the sampling equipment; personal protective clothing or equipment needed; containers and preservation needed for the sample; any requirements related to transportation to the testing location; and field documentation requirements.	

Chapter 8.5 - Field-Testing Guidance

Applicability	Quality Assurance Element	Initials
Y N N/A	Is staff aware that documentation must take place immediately upon testing, following established guidance for documentation?	
Y N N/A	Have you determined what compounds are being tested for, in what medium, and what detection limit is needed to produce meaningful results?	
Y N N/A	Has consideration been made for other compounds or conditions possibly present that could interfere with detecting the compounds being tested for?	
Y N N/A	Have you considered splitting some samples so that confirmatory testing can be done in a laboratory?	
Y N N/A	Have you considered the environment in which the testing will take place – outdoors or in a truck or trailer? There may be special weather-related requirements for equipment, such as avoiding temperature extremes or high humidity conditions.	
Y N N/A	Have you ensured that the personnel doing the testing have the proper training to run the testing equipment in question? Training records must be kept up-to-date with Human Resources. See QMP Chapter 4 Personnel Qualifications and Training Guidance.	
Y N N/A	The following issues must be addressed by the field testing procedures, together with any required Health and Safety Plan: choice of equipment; calibrating the equipment and calibration records; decontaminating or discarding the equipment; personal protective clothing or equipment needed; containers and preservation needed; any requirements related to transportation to the testing location; and field documentation requirements.	

Chapter 8.6 – Fixed Laboratory Testing Guidance

This guidance is written for programs other than the DES Laboratory Services Unit. They have extensive guidance of their own which should be consulted as necessary.

Applicability	Quality Assurance Element	Initials
Y N N/A	Is a pre-existing protocol available, or is a program-specific one needed? Whenever feasible, sampling procedures written by others, such as Standard Methods for the Examination of Water and Wastewater or various USEPA guidance documents should be used. In those cases, care must be taken to ensure that the most up-to-date, approved edition is used. Where such testing procedures are not available, the program manager must ensure that a program-specific procedure, which meets the program's data quality needs, is produced and made available to staff. When in doubt, project and program managers should consult with the Administrator of the DES Laboratory Services Unit or the Laboratory Services Unit QA Manager.	
Y N N/A	Have you determined what compounds are being tested for in what medium, and what detection limit is needed to produce meaningful results?	
Y N N/A	Has consideration been made for other compounds or conditions possibly present that could interfere with detecting the compounds being tested for?	
Y N N/A	Have you ensured staff has the training needed to run the testing equipment in question? Training records must be kept. See QMP Chapter 4 Personnel Qualifications and Training Guidance.	
Y N N/A	When testing is done by others, either by private parties (including a number of volunteer organizations such as the Volunteer Lakes Assessment Program and the Volunteer Rivers Assessment Program) who are reporting results to DES or by parties such as contractors working as DES proxies, the same procedure issues apply. It is the program manager's responsibility to ensure that these other parties are using appropriate written procedures. This may include review and approval of the other party's own procedure. Reference should be made to other standard procedures being used.	

Y N N/A	Testing procedures must include: information on choice of equipment; calibration of the equipment and calibration records; QA/QC measures needed to ensure that the DQOs are met; decontamination requirements; personal protective clothing or equipment needed; containers and preservation needed; and documentation requirements.

Chapter 8.7 - Environmental Conditions Description and Data

Applicability	Quality Assurance Element	Initials
Y N N/A	Have your staff been trained in program procedures for field recording of environmental condition data?	
Y N N/A	Have you provided staff training as to where or how to store this information?	
Y N N/A	Has a filing system been established to allow this information to be easily retrieved?	

Chapter 8.8 - Guidance for Reporting Results

Applicability	Quality Assurance Element	Initials
Y N N/A	Do your program's reporting formats contain information that allows the person receiving the report to assess the data quality? Remember that QA/QC information must not obscure the data being reported. Dates and sampling/test methods must be included or referenced. Raw data should be included as necessary.	
Y N N/A	Are your programs' reporting formats designed to clearly communicate the data? Data must not be obscured by technical jargon, therefore, the audience must be considered when preparing a report. Greater clarity is needed for reports to the public and detailed QA/QC information may not be necessary. When reporting to technical staff, full QA/QC information should be included.	
Y N N/A	Do the reports include the name of the sampler/tester and of the reviewer?	
Y N N/A	Do your reports include tables and graphs to allow for clear communication? Where past results are part of that summary table or graph, the report should include enough information to allow interested people to find that past data. Including the date of the past sampling/testing, the location and parameter being sampled/tested, and the person/unit that did the testing will probably be sufficient to meet this goal.	
Y N N/A	Are sampling and test results to be reported to a designated program person? For instance, the DES laboratory will report to the person doing the sampling, unless specifically instructed otherwise. The project manager is responsible for instructing staff to forward results to the proper parties.	
Y N N/A	Where samples are taken on private property, has the property owner been sent a copy of the results? Unless enforcement considerations dictate otherwise or the property owner has stated that he/she does not want the data, this should probably be done. If a municipality has requested specific data, or entire classes of data, it must get the results unless enforcement considerations indicate otherwise. In this case, the municipality should be informed, confidentially if necessary, that this information is enforcement-confidential.	

Y N N/A	Is data shared with USEPA and other government agencies freely? In general, all DES data is public information. DES staff should be open, and in fact pro-active, in sharing our information.	

Chapter 9 - Assessment & Corrective Action Guidance

Applicability	Quality Assurance Element	Initials
Y N N/A	Do you understand that as Program Manager the DES QA Policy requires you to annually assess whether operations comply with requirements outlined in the DES QMP, required QAPPs or similar documents, SOP's, technical or professional standards, or other requirements?	
Y N N/A	Do you have the most updated QA system audit checklist?	
Y N N/A	Did you record the results of your assessment in memo form and deliver results to DES QA Manager? This memo must include a listing of the items reviewed, deficiencies found, reasons for the deficiency, and either a schedule for implementing corrective action, or documentation of the corrective actions taken (see Sec.9.6 of the QMP).	
Y N N/A	Does someone other than the person who gathered the data check it?	
Y N N/A	Does the checking person initial or otherwise sign off on the data sheet?	
Y N N/A	When the checker has an issue with a data point, is there a process to address his/her issues?	
Y N N/A	Have you read and understood Chapter 9.2 of the QMP, which contains methods by which your data usability concerns can be addressed.	
Y N N/A	Have you performed your annual performance appraisals per specs in NH Administrative Rules Per 100 through 1500 and the DES Human Resources Unit?	
Y N N/A	Are staff reporting all significant variances from, or problems with the procedures in QAPPs, SOPs, or other Department requirements, as they occur? (These variances or problems are referred to as "non-conformances")	

Y N N/A	Do staff have updated copies of the non-conformances and corrective actions log sheet attached to this guidance package?	
Y N N/A	Do you have a file for these log sheets to allow you to produce them during a QA System audit?	

Appendix 1

NHDES Quality Assurance System

Base Audit Checklist

Audited Program: _____

Program Representative: _____

Auditor(s): _____

Audit Location: _____

Audit Date(s):

_____

Description of Program: _____

_____

Notes: _____

When asked to "show/provide" documentation, a copy should be provided to the auditor, unless the document in question is both a) book-length *and* readily available, e.g. EPA guidance documents.

Copies of audit report shall be provided to the Quality Assurance Manager and the manager of the program being audited.

Write on the back of the sheets if necessary, using the question numbers to key responses.

1.   Background information

a) What data do you gather/use/compile?

b) What decisions are made using this data?

c) What is the audience for the data?

2.   Data Quality Objectives

a) Show/provide documentation on how you
determine your data quality needs or objectives.
   If none documented, describe them

b) How are these data quality needs/objectives
communicated to staff?

c) Do your DQOs change when there are
enforcement concerns?

3.   Sampling

a) Show/provide written sampling procedures If none documented, describe them	

b) How do you field-modify sampling procedures?
      Show/provide approval procedures
      How are changes approved?
      How are changes recorded?
      Provide documentation of field-
         modification guidance/procedures	

c) How is staff trained in procedures? Show/provide documentation	
d) How are training records kept? Show/provide documentation	
e) How is equipment calibrated?	
f) How are calibration records kept?	
How do you ensure that your sampling methods and procedures meet your data needs?	

4. Field Testing

a) Show/provide written field testing procedures
   If none documented, describe them

b) How do you field-modify testing procedures?
   If non documented, describe them
   How are changes approved?
   How are changes recorded?
   Provide documentation of field-
     modification guidance/procedures

c) How is staff trained in procedures?

d) How are training records kept?

e) How is equipment calibrated?

f) How are calibration records kept?

g) What field records are generated?
   Show/provide copy of
     guidance/procedure

h) How are records kept in the office?
   Show/provide copy of procedure/guidance

i) How do you ensure that your sampling
methods and procedures meet your data needs?

5. Fixed Laboratory Testing

a) Show/provide the written protocols you follow	

b) How are they changed (on an ad-hoc basis)?
     What approval procedures are followed?
     How are changes recorded?
         Communicated to user of the data?	

c) How do you ensure that protocols are up to date?	

d) How do you check in-coming sample material?
     Show/provide copy of procedure
     How is this check recorded?
     How do you address non-conformances?	

e) How is data handled when a test is not run per specification?	
f) How is staff trained? How are training records kept?	
g) Show/provide copy of procedure for recording test results	
h) Show/provide copy of procedure for communicating results to the data user?	

6. Environmental Conditions Descriptions & Data

a) How do you decide what information to record? Provide documentation of decision	
b) How is the information recorded? If forms, provide copies	
c) Show/provide copy of procedures for taking field notes? If none documented, describe them	
d) Show/provide copy of procedures or guidance for photo-documentation If none documented, describe them	
e) How is staff trained? How are training records kept?	

f) How are deviations from procedures handled?
    Before the fact
    After the fact	

g) How are changes to procedures made?
    Who approves?
    How are they communicated to staff?
    Show/provide example document
    Is there a procedure for this process?	

7. Review & Validation of Data

a) Show/provide any written guidance you have
to describe how you check data
    If none documented, describe them

b) Show/provide any written guidance you have
to describe how you address non-conforming
data
    If none documented, describe them

8. Retention of Data

a) Show/provide filing procedures
    If none documented, describing them

b) Do you keep back-up copies of any data?
    How do you decide what to back-up?
      Show/provide copy of procedure

c) Show/provide procedures for securing files
    If none documented, describe them

d) How long do you retain data?
    Show/provide copy of data retention
      decision
    Include data removal/destruction decision

9. Reporting Results

a) Who do you send data to?

Note: "Send" refers to anyone outside of the program, whether elsewhere in DES or external to DES

b) Show/provide written guidance on reporting formats
    If none documented, describe them

c) How do you decide who is responsible for signing the data reports?
    Show documentation of decision

d) When reporting to different audiences, do you vary the form or type of report?
    How is this decision made?

e) How is staff informed of proper reporting methods?
    Provide example documentation

10. System Reviews & Assessments

a) Do you *periodically* review your data quality system to see that it is up to date and appropriate?
    Show/provide documentation for the last review

  Note: this does not refer to ad hoc adjustments

b) How do you document and correct non-conformances?

General Observations/Comments by Staff: